

Draft

# 10-Year Finance Plan

Prepared by the California Bay-Delta Authority

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# Introduction

Based on direction from the California Bay-Delta Authority (Authority) and the Bay-Delta Public Advisory Committee (BDPAC) and consistent with advice given by the Finance Plan Independent Review Panel, Authority staff is working with stakeholders and agencies to develop a 10-year finance plan for the CALFED Program.

The need to do a comprehensive analysis of program objectives, future funding targets, and proposed cost sharing for CALFED is prompted by: 1) the fact that current funding sources (primarily bond funds) will soon be depleted, 2) the review of program benefits and beneficiaries is needed to support a benefits-based cost allocation as called for in the Record of Decision, and 3) the status quo approach to funding the Program primarily through State bonds is being challenged due to the current state fiscal crisis and the pressure by the State Legislature to expand the financial contributions from beneficiaries of the Program.

This effort is, inevitably, a controversial undertaking. Though the concept of beneficiary pays is broadly supported, the task of putting such a principle in place is a difficult one. There are many uncertainties regarding CALFED Program actions, targets, costs, and benefits – and cost-sharing arrangements can not be negotiated in the abstract. The CBDA recognizes the importance of working with state and federal agencies and interested stakeholders to develop a 10-year finance plan that acknowledges and develops processes to address the uncertainties, yet moves forward with cost-sharing proposals on those parts of the program where information is sufficient.

Attached are working draft straw proposals intended to suggest funding and cost-sharing targets for each of the Program's 10 elements. For some Program elements, the proposed funding and cost-sharing targets are specific, broadly supported and unlikely to change. For others, there are still significant unknowns and further discussions are needed. In all cases, the level of certainty on targets and benefits is higher in the near-term. For that reason, the Program element approach distinguishes between near-term and longer-term projections. It also embeds an adaptive management loop that identifies strategies for refining targets and allocations as better data becomes available.

These drafts – presented as informational items now – are informed by numerous meetings with stakeholders and agencies. These discussions have helped to increase the understanding of the finance issues facing the CALFED Bay-Delta Program. They also have helped to crystallize the overarching principles and guidelines used by staff and consultants to craft these straw proposals. These principles – summarized elsewhere in this document – should provide guidance to future discussions even as funding targets change or specific cost-sharing agreements are reached.

One final note: The 10-year finance plan is just that – a “plan.” To implement the plan, each element or project/action will either require Congressional authorization and appropriation, and State legislative and/or voter authorization and appropriation. Ideally, it will be a plan that all the CALFED agencies and stakeholders will embrace and can use to create a common voice for future CALFED Bay-Delta Program funding.

## Schedule and Process

As noted already, the CBDA has dedicated significant resources to working with agencies and stakeholders to develop the information included in this draft 10-Year Finance Plan. These conversations have taken place at BDPAC and BDA, with BDPAC Subcommittees, and in a series of topic-focused ad-hoc meetings with stakeholder and agency representatives.

Below is a synopsis of the key meetings, schedule and work products – both in recent weeks and in the coming months. The steps below are intended to satisfy two needs: (1) ensure stakeholder and agency representatives are partners in the development of a 10-year plan; and (2) ensure a proposed plan is developed in time to meet Fall 2004 budgetary deadlines.

***Developing initial funding targets and unmet funding needs.*** Draft information was prepared by Program Element and task including: proposed annual funding targets for a 10-year period, identification of available funding and remaining unmet needs, and preliminary finance strategies that describe the type of finance tools likely to support each Element. These papers were informed by a series of meetings with stakeholder and agency representatives, including:

- ***June BDA Meeting*** -- Presented summary of expected cost estimates, available funding and unmet needs.
- ***July 8<sup>th</sup> BDPAC Meeting*** -- Presented updated funding targets and available funding, described process and schedule, and reviewed preliminary finance strategies as presented at BDA in June.
- ***August 11<sup>th</sup> & 12<sup>th</sup> BDA Meeting*** -- Presented revised funding targets, discussed preliminary finance strategies, reviewed process and schedule, and highlighted issues.

***Refining funding targets and framing issues.*** Issue Papers were developed for each Program Element laying out: likely activities and associated funding targets; current funding available; likely funding gaps, and key issues and options for cost-sharing arrangements to cover the unmet funding needs. Numerous meetings with agency and stakeholder representatives, including:

- ***August thru September*** – Met with agencies, stakeholders and public interests to identify funding issues and to the extent possible reach agreement on cost allocations.
- ***September 9<sup>th</sup> BDPAC Meeting*** – Presented and had in-depth discussion on Issue Papers. BDPAC meeting also served as public workshop to ensure broader input.

***Preparing draft funding targets and cost-sharing arrangements.*** Working drafts developed for each Program Element laying out: funding and performance history, proposed funding target, existing funding, proposed allocations, and unresolved issues and considerations. Commentary included in each document to present both the rationale for targets and cost-shares. Agency/stakeholder meetings held – or to be held – in support of this work include:

- ***September***– Met with agencies, stakeholders and public interests to further discuss targets and possible cost-share arrangements.
- ***October 14<sup>th</sup> BDA Meeting*** -- Present 10-Year Finance Plan. As necessary, discuss remaining gaps/issues.

### *Next Steps*

As noted earlier, the October BDA meeting is intended to familiarize members and the broader stakeholder and agency communities with the concepts and preliminary recommendations included in these straw proposals. The next step is to prepare a final set of proposals for review at a future BDA meeting.

The CBDA anticipates the following next steps:

- For any remaining issues not resolved, additional discussions will be held.
- For finance issues that have a 2005-06 state budget effect, final submittal to the Department of Finance will be prepared later this year in order for the issue to be reflected in the Governor's Proposed Budget for FY 2005-06.
- Legislative committees have expressed an interest in holding hearings on CALFED financing. If scheduled, the hearings are likely to be held in January.

It is worth noting that the Draft Finance Options Report prepared by staff and consultants and reviewed by the Finance Plan Independent Review Panel provided an important foundation for the evolving drafts of the 10-Year Finance Plan. Information from the Draft Finance Options Report informed early drafts and provided focus for stakeholder and agency review and comment. At this point, the CBDA does not anticipate finalizing the Draft Finance Options Report, but does expect it will continue to provide important background information for future discussions.

## Finance Plan Overview

This section presents draft straw proposals for the CALFED program elements (a finance proposal for the transfers program is not included because there is no unmet need).

These working drafts represent staffs best cut at funding targets and allocations at this time. The proposals have evolved based on significant stakeholder and agency input and, in some cases, will continue to change in the coming weeks as new information is developed.

As noted earlier, it is important to emphasize that the level of certainty associated with targets and benefits in the near-term (within the next three years or so) is higher than those associated with the out-years. There are many reasons for this uncertainty. Federal and state authorizations and appropriations are not yet determined. Locals are still assessing their willingness to pay based on an analysis of their expected benefits. The extent to which unused Proposition 50 funds can be earmarked for specific cost-shares is still under discussion. And evaluation of program performance and benefits to-date is ongoing and may impact future assessments of appropriate funding targets and costs-shares.

Recognizing this uncertainty, the draft 10 Year Finance Plan embraces an adaptive management approach. Each Program Element identifies critical uncertainties associated with its analysis and specific strategies to develop better information. Periodic evaluations are called for within each Program Element to ensure the ongoing revision, as appropriate, of funding targets and costs-shares.

### Guiding Principles

The Bay-Delta Authority proposes the following finance principles be used in developing the 10-year finance plan and future finance efforts. These principles are generated from the discussion supporting the Draft Finance Options Report and as a result of more recent agency and stakeholder meetings on the 10-year finance plan.

1. **Support CALFED Solution Principles:** The CALFED solution principles should always be kept at the forefront of any Bay-Delta finance discussion. Finance agreements should be crafted in a way deemed equitable, affordable, and durable. They should not result in significant redirected impacts and they should reduce Bay-Delta system conflicts.
2. **Follow a Benefits-Based Approach:** In developing finance allocations, the fundamental principle from the Record of Decision of beneficiaries-pays will be emphasized. All cost allocations will attempt to correlate program benefits with the groups receiving the benefits and recover cost accordingly.
3. **Public and User Benefits:** All CALFED Bay-Delta Program benefits can be divided into two broad categories: public and resource user. The general public includes state

and federal taxpayers and the resource users include water users, other local agencies, recreation, commercial fishing, flood protection and hydropower recipients. While there is often a lack of specific data to draw a clear line between the amount one group benefits vs. another – it is important to maintain the distinction to ensure a benefits-based approach. For example, the lack of State General Fund dollars that would be used to support State public benefits should not be addressed by increased user fees.

4. **Reasonable Funding Targets:** All CALFED agencies and stakeholders should strive to identify funding targets for the CALFED Bay-Delta Program that can meet program objectives, but have also focused on the highest priorities and maximized program efficiency. Additional funding for the Program should be requested from State or federal sources or from resource users only after reasonable funding targets have been developed. In addition, while Program performance will increasingly be judged in future years by programmatic performance measures (i.e. fish populations, reduced flood damages in the Delta); inevitably one form of balance across the CALFED Program will continue to be the available funding to meet the funding targets – which further supports the need for funding targets to reflect high priorities and increased efficiencies.
5. **Periodic Evaluation:** In many, if not all Program elements, additional information is being developed that will better direct program priorities and as a result could modify proposed funding targets and allocations. Therefore, the Finance Plan should explicitly identify the timing for a check-in and the process for review of the program element priorities. In those programs where there is substantial uncertainty, the Finance Plan will identify a near-term and long-term approach to financing.
6. **Develop Accounting System to Review Program Benefits and Costs:** Once the Finance Plan funding targets and cost allocations are proposed, a system needs to be developed as part of the Plan that tracks the link between program benefits and revenue. This system will allow program contributors to look back on program spending to determine if contributions have been beneficial to the program and should be continued or not.
7. **Use of Available Bond Funding.** Public funding already dedicated to support CALFED Program elements should be exhausted before identifying cost-share allocations for additional beneficiaries.
8. **Federal cost share.** If federal spending is authorized but not yet appropriated, a federal cost-share is included in the proposed allocations. If no federal authorization exists, federal cost-share is eliminated or reduced to reflect the limited authority.
9. **Dividing Public Share.** State and federal cost-shares should be split 50/50 – in recognition of broad public benefits – unless an analysis can demonstrate that either the California or U.S. public is garnering a greater share of the benefits, or if the federal authorization is limited.

10. **Allocation within CVP and SWP.** Cost-share arrangements are limited to allocating costs among the state and federal governments, water users such as CVP and SWP, and locals. The Finance Plan does not attempt to allocate shares within an individual user group such as the SWP.
11. **Appropriate Use of Public Funds.** Public funding should be made available for projects that generate public benefits and funding should be commensurate to the level of public benefits received. It can be assumed that locally cost-effective projects will eventually be implemented. However, public dollars can be provided for those projects if it accelerates or enhances public benefits beyond those that would accrue if it were a purely locally funded initiative.
12. **Benefit-Based Grant Programs.** For grant programs, the funding splits are presented as average figures, but actual cost shares are to be determined on a case-by-case basis. For example, in the Water Use Efficiency Program, the draft straw proposal assumes an aggregate cost share on agricultural water conservation of 40% local and 60% state/federal. The actual cost-share on any individual project would be determined based on analysis of that project's benefits.

## **Funding Targets**

As part of the 10 year finance plan, the funding targets originally included in the CALFED Record of Decision (ROD) were reviewed and updated based on a review of several factors: program actions needed to meet program objectives, program priorities, revised schedules, and in several cases (Water Conservation and ERP) a "budget constrained" funding target was developed to reflect the fiscal realities expected in the next 5-10 years. Summarized below are the original ROD targets and the new 10Year Finance Plan targets. As indicated, the target for every program was reduced (except for a minor increase in Science) resulting in an overall reduction of 40% on an average annual basis. Each Program Element Straw Proposal includes information that describes the basis for the new target. In the November Finance Plan further explanation for the reduction will be provided and summarized.



<b>Finance Plan and ROD Targets</b> (\$ in millions)				
<b>Program Element</b>	<b>Average Annual ROD Target</b>	<b>Average Annual Finance Plan Target</b>	<b>Difference</b>	<b>% Change</b>
Ecosystem Restoration	\$202.9	\$150.0	-\$52.9	-26.1%
Environmental Water Account	\$50.0	\$40.7	-\$9.3	-18.5%
Water Use Efficiency	\$422.3	\$254.9	-\$167.4	-39.6%
Water Transfers	\$2.1	\$0.6	-\$1.5	-72.0%
Watershed	\$42.9	\$25.0	-\$17.9	-41.7%
Drinking Water Quality	\$96.4	\$57.0	-\$39.5	-40.9%
Levees	\$63.4	\$43.6	-\$19.8	-31.3%
Storage	\$203.6	\$108.9	-\$94.7	-46.5%
Conveyance	\$131.6	\$19.5	-\$112.1	-85.2%
Science	\$42.9	\$44.0	\$1.1	2.7%
Oversight & Coordination	N/A	\$12.0		
<b>Total</b>	<b>\$1,258.0</b>	<b>\$756.1</b>	<b>-\$501.9</b>	<b>-39.9%</b>

### Summary of Unmet Needs and Proposed Funding Allocations

The Tables below are a summary of the program element tables provide as part of each Straw Proposal. The Tables show a remaining 20% (\$1.5 billion) funding gap for several reasons:

- The funding gaps remain in the near –term for most programs because of the delay for several years before a new State bond is expected to be approved or new water user contributions are received.
- Cost allocations to cover the gap have not been proposed for several activities-- WUE (recycling); Drinking Water Quality, and Science (Interagency Ecological Program).

Based on the available funding and the proposed allocations the CALFED Program costs over 10 years are shared as follows:

27%	State taxpayer
19%	Federal taxpayer (nonreimbursable)
11%	Water User
23%	Local Grant matching
20%	Unallocated Funds / Remaining Gap

CALFED Bay-Delta Program Proposed 10-Year Finance Plan (\$ in millions) October 7, 2004													
Program Element	Funding Target	Available Funding				Available Funding Total	Unmet Needs	Proposed Funding for Unmet Needs				Proposed Additional Funding	Remaining Gap
		State	Federal	Water User	Local Match			State	Federal	Water User	Local Match		
Ecosystem Restoration	\$1,500	\$150	\$3	\$200		\$363	\$1,147	\$392	\$405	\$200	\$150	\$1,147	
Environmental Water Account	\$407	\$90				\$90	\$318	\$82	\$124	\$112		\$318	
Water Use Efficiency	\$2,549	\$287	\$12			\$300	\$2,249	\$110	\$234		\$681	\$1,025	\$1,224
Water Transfers	\$6	\$6				\$6							
Watershed	\$250	\$47				\$47	\$203	\$70	\$95		\$38	\$203	
Drinking Water Quality	\$570	\$23	\$0.50	\$3		\$26	\$543	\$50	\$153	\$195.0	\$98	\$496	\$47
Levees	\$436	\$41	\$0.20		\$4	\$45	\$391	\$147	\$161	\$27	\$49	\$384	\$8
Storage	\$1,089	\$142	\$3		\$263	\$408	\$681	\$137	\$34	\$9	\$441	\$621	\$60
Conveyance	\$195	\$66		\$19		\$85	\$110	\$39	\$6	\$52		\$97	\$13
Science	\$440	\$37	\$9	\$13	\$0.4	\$59	\$381	\$105	\$135			\$240	\$141
Oversight & Coordination	\$120	\$72	\$2			\$74	\$47	\$21	\$23			\$43	\$3
Total	\$7,561	\$960	\$29	\$278	\$267	\$1,534	\$6,027	\$1,060	\$1,415	\$590	\$1,465	\$4,530	\$1,497

<b>CALFED Bay-Delta Program</b> <b>Proposed 10-Year Finance Plan</b> (\$ in millions) October 7, 2004							
Program Element	Funding Target	State	Federal	Water User	Local Match	Remaining Gap	Total Funding
Ecosystem Restoration	\$1,500	\$450	\$453	\$447	\$150		\$1,500
Environmental Water Account	\$407	\$171	\$124	\$112			\$407
Water Use Efficiency	\$2,549	\$398	\$246		\$681	\$1,224	\$1,325
Water Transfers	\$6	\$6					\$6
Watershed	\$250	\$116	\$95		\$39		\$250
Drinking Water Quality	\$570	\$73	\$154	\$198	\$98	\$47	\$522
Levees	\$436	\$188	\$161	\$27	\$53	\$8	\$428
Storage	\$1,089	\$279	\$37		\$712	\$60	\$1,028
Conveyance	\$195	\$105	\$6	\$71		\$13	\$182
Science	\$440	\$142	\$144	\$12		\$142	\$298
Oversight & Coordination	\$120	\$93	\$24			\$3	\$117
<b>Total Dollars</b>	<b>\$7,561</b>	<b>\$2,020</b>	<b>\$1,444</b>	<b>\$868</b>	<b>\$1,733</b>	<b>\$1,497</b>	<b>\$6,064</b>
<b>Total by Percent</b>	<b>100%</b>	<b>27%</b>	<b>19%</b>	<b>11%</b>	<b>23%</b>	<b>20%</b>	<b>80%</b>

## Major Issues

### 1. **Water User Contributions for ERP, EWA, and Levees.**

The Finance Plan includes new water user contributions for ERP, EWA and Levees. For each program there are water user concerns regarding the appropriate water user share, which water users should contribute, and when the contribution should begin. (See Table below for schedule associated with new water user contributions)

### 2. **Likelihood of Increased Federal Share.**

At this time the Federal Authorization bill has passed Congress and is expected to be signed by the President. Although the Authorization bill provides for increased Federal contributions, and this Finance Plan only includes Federal funding that is consistent with the authorization, there is general concern that the Federal appropriation increase will be difficult to receive starting in Year 6 (Federal FY 2006) as well as in future years. With the decline of State funding from existing State bonds, and the delay in new bond funding until Year 8, increased Federal funding in Years 6 and 7 are critical to many program elements.

### 3. **Reliance on New Water Bond by Year 8 (FY 2007-08)**

This Finance Plan assumes the earliest a new Water Bond could be approved by the voters is November 2006, and therefore would not be available for appropriation until the following year FY 2007-08. However, it may be possible to develop budget proposal for the FY 2006-07 Fiscal year in anticipation of passage.

### 4. **Near-term Funding Gap**

With the existing State bond funding being expended in most cases by Year 6, a funding gap results even with an assumed increase in federal funding. The Finance Plan does not include proposals to fill the near-term funding gaps for all Program Element, except for ERP, EWA and Levees. For ERP and EWA it is critical to maintain the proposed funding level as required as part of the regulatory assurances. For the Levee program, maintaining funding is necessary while the program is under evaluation in order to minimize additional flooding and levee breaks in the Delta. The Levee Program is the only program in which a possible General Fund increase is proposed to address a funding gap

### 5. **Water Recycling Funding Allocation**

The recycling program is the only major program activity in the Finance Plan that does not include a proposed funding allocation in this draft. As a result, the summary tables in this section show a large funding gap for this program. Additional discussion is needed with the CALEPA, the SWRCB, and interested stakeholders to develop the proposed allocation to include in the November Finance Plan. by the

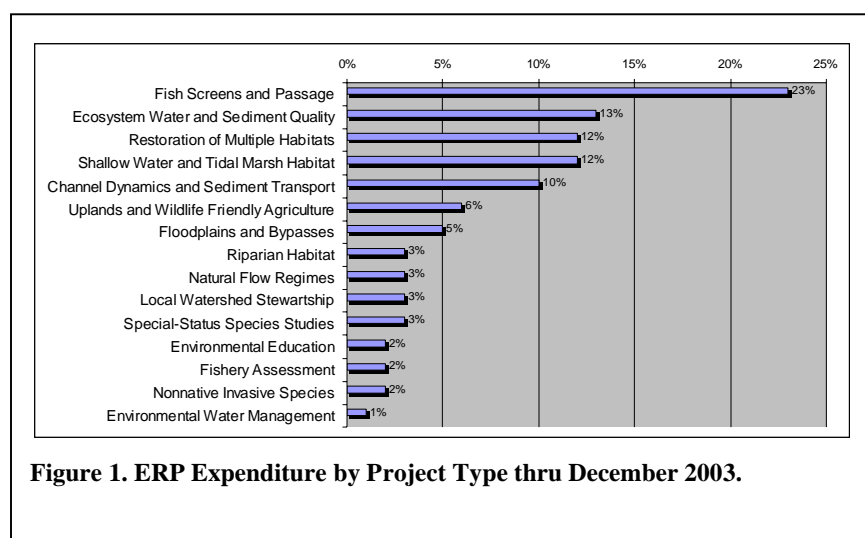
### **Funding Assumptions and Timing**

<b>Year 5</b>	<ul style="list-style-type: none"> <li>• <b>Federal.</b> Federal authorization is signed</li> </ul>
<b>Year 6</b>	<ul style="list-style-type: none"> <li>• <b>Federal.</b> Assume increase funding from federal government to cover proposed share.</li> </ul>
<b>Year 7</b>	<ul style="list-style-type: none"> <li>• <b>State.</b> Possible General Fund request for Levee Program and other critical needs as identified</li> <li>• <b>Water users.</b> Water User contribution for ERP proposed to begin</li> </ul>
<b>Year 8</b>	<ul style="list-style-type: none"> <li>• <b>State.</b> New state revenue from state water bond funding assumed available</li> <li>• <b>Water User.</b> New water user contributions for Levees and EWA assumed to begin; EWA fee tied to operations of permanent barriers</li> </ul>

# Ecosystem Restoration Program

## Background and Funding History

Between 2000 and 2004, funding for the ERP has totaled \$648 million (\$452 million state, \$22 million federal, \$101 million from water users, and \$73 million estimated local grant matching). In addition, contributions were made before the ROD as part of the Delta Accord and Category III funding that totaled \$282 million (\$60 million state, \$190 million federal and \$32 million water users funding).



As of December 2003, ERP had funded approximately 400 ecosystem restoration projects. Figure 1 shows the share of ERP expenditures by project type.<sup>i</sup>

As part of assuring programmatic compliance for the CALFED Program with the Federal Endangered Species Act (FESA), California Endangered Species Act (CESA), and California

Natural Community Conservation Planning Act (NCCPA), the ERP Implementing Agencies agreed on a common list of 119 milestones that, if achieved, would constitute adequate implementation of the ERP, Water Quality Program, and Multi-Species Conservation Strategy (MSCS) through Stage 1 (first 7 years of the CALFED Program). Midway through Stage 1 a progress assessment has determined that of the 119 milestones, 79% are on or ahead of schedule for completion, and 13% are behind schedule. Another 8%, all having to do with water quality improvements, are still under evaluation because they dealt with complex and evolving issues that will require long-term solutions.<sup>ii</sup>

## **Proposed 10-Year Finance Plan**

### ***Proposed Funding Target***

The proposed funding target for ERP over the ten year planning period is \$1.5 billion, or, on average, \$150 million/year. This target is based on the following considerations:

- The Record of Decision (ROD) calls for ERP expenditures of not less than \$150 million/year through Stage 1. This funding level for ERP is incorporated into the regulatory commitments embodied in the ROD and the Conservation Agreement Regarding Multi-Species Conservation Strategy (Conservation Agreement) signed in 2000, and amended in 2004.
- The Conservation Agreement as amended includes program-level regulatory commitments for exports through the end of Stage 1, provided that certain conditions are met, including at least \$150 million/year for the ERP. It is important to note, however, that the Conservation Agreement also includes the ability to review this requirement through a process if funding is not sufficient to meet this target.
- ERP actions over the next ten years will focus on meeting ERP/MSCS milestones and on additional actions that contribute to recovery of MSCS species, especially for those species for which the CALFED Program is responsible for recovery.<sup>iii</sup>
- There is broad agreement among environmental interests that funding for ERP should not dip below \$150 million/year. Representatives of some environmental interest groups have expressed concern that this level of funding may turn out to be insufficient for ERP to meet its ecosystem restoration and species recovery objectives by 2030. This concern is shared by the ERP Implementing Agencies.
- Among water user representatives there is no consensus around a \$150 million/year target for ERP. Water users are in the midst of a review of ERP project expenditures, program targets, and water supply benefits. Water users will use this review to evaluate proposed ERP funding requirements and water user cost allocations. Results from this review are expected in late October.

### ***Existing Available Funding***

ERP has available approximately \$353 million in existing sources of funding over the next ten years -- about 24% of the 10-year funding target. CVP Restoration Fund contributions, which have averaged about \$20 million/year between 2000-2004, account for the largest share of existing ERP funding. State bond funds and general fund appropriations constitute the second significant source of available funding. Existing ERP funding through 2014 is shown in Table 1.

Given existing funding sources, there is a funding shortfall of somewhat more than \$1.1 billion for the period 2005-2014 which will need to be filled through a combination of state, federal, water user, and local funding sources.

### ***Proposed Funding Allocation***

Costs for ERP over the next ten years will be split between (1) the state government, (2) the federal government, (3) water users, and (4) local agencies and organizations (through ERP grant matches). The proposed allocation of ERP costs between these three funding sources is as follows:

- State – 30%
- Federal – 30%
- Water users – 30%
- Local – 10%

This allocation is based on the following considerations:

- The allocation is broadly consistent with the ERP cost allocation proposed in the ROD and the proportional benefits-based allocation presented in the Draft Finance Options Report (FOR).
- The allocation accounts for the potentially large public benefits generated by ERP investments by assigning more than half of all ERP costs (60%) to state and federal taxpayers.
- The allocation recognizes both the benefits ERP can provide to water users as well as the costs development of water resources for human uses imposes on public trust resources by assigning a significant cost share (30%) to water users deriving supply from the Delta and its tributaries.
- The allocation treats potential benefits to recreational and commercial fishing, hydropower, and flood protection as incidental benefits and does not assign cost shares to these groups.<sup>iv</sup>
- The 10% share allocated to local agencies and organizations is based on average grant matching levels for the period 2001-2003.

Cost shares based on the proposed funding target and allocations are shown in the following table. The reader should note that ERP costs paid by each funding source in the table deviate from the proposed shares because of issues tied to expenditure of already available funds, timing of federal appropriations and new state water bonds, and implementation of a water user fee. With respect to these timing issues, the following assumptions have been made:

- New federal appropriations for ERP will be available no sooner than Year 6 and are limited to 30% of the annual funding target.

- The earliest that revenue from a water user fee could be received is Year 7. The combined annual revenue from CVP RF payments and this fee are limited to 30% of the annual funding target.
- The earliest a new state water bond would be available to fund the state's share of ERP is Year 8. Bond funds are used in Years 8 and 9 to balance funding shortfalls in Years 5-7.

These funding constraints cause the allocation on the 10 year period to deviate from the allocation proposed above (i.e. 30, 30, 30,10). Specifically, the state's share exceeds the proposed 30% and the federal and water user shares to fall below 30%.

## Unresolved Issues

There are a number of issues and considerations related to the above proposal still to be resolved. Key among these are the following:

- **Funding shares among water users** – The ERP finance proposal assigns 30% of overall ERP costs to water users, or \$45 million/year. CVP Restoration Fund payments account for approximately 50% of the water user ERP payment. The proposed division of the remaining 50% of water user costs between SWP contractors and non-CVP water users is still under evaluation. The development of any new fee would be based on the expected benefits that a water user would receive from the ERP. The magnitude of the fee, how it would be applied and to whom will require through discussion with all parties. This issue requires more analysis and discussions among stakeholders. BDA will solicit stakeholder input during October and may be ready to make a proposal in November.
- **Developing individual cost shares for large ERP investments** – Some water users have suggested that large ERP projects should be financed separately from the overall ERP. Cost allocations between state, federal, and water user funding sources would be negotiated on a project-by-project basis for these cases. Based on discussions with ERP Implementing Agencies it is not clear that there are planned ERP projects of sufficient size such that separate financing arrangement would be warranted. This approach requires further discussion with stakeholders and the ERP Implementing Agencies.

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<sup>i</sup> California Bay-Delta Authority, Ecosystem Restoration Program data, figure generated for this report. Note that percentages add to more than 100% because some investments were multi-purpose.

<sup>ii</sup> CALFED Bay-Delta Program, Reinitiation of Consultation: Assessing Progress Towards Milestones and the Efficacy of the Environmental Water Account, July 2004, including the Response to Input letter and attachment from the California Department of Fish and Game dated September 15, 2004.

<sup>iii</sup> The Attachment to the proposal, *CALFED Ecosystem Restoration Program: Budget Tasks and 10-Year Funding Targets*, provides a more detailed discussion of expected ERP priority actions and spending over the next ten years.

<sup>iv</sup> Some water users have suggested that flood protection and hydropower benefits for some ERP projects could be large enough to include these beneficiary groups in repayment plans for those projects. This would have to be done on a case-by-case basis, however, rather than as part of the general finance plan for ERP. It is also important to note that CVP hydropower users contribute to the CVP Restoration Fund and therefore are in fact be part of the proposed ERP cost allocation.



**Table 1. Ecosystem Restoration Program  
Straw Proposal - Funding Allocation**

(\$ in millions)  
September 20, 2004

Program Year	Funding Targets	Available Funding						Total Available	Unmet Needs	Proposed Funding for Unmet Needs				Total Funding Proposed	Remaining Gap
		State				Federal	Water User					New Fee			
		GF	Prop 204	Prop 13	Prop 50		CVPIA RF					Non-CVP water users			
Years 5-9	\$750.0	\$4.7	\$1.6	\$42.5	\$96.4	\$3.2	\$100.0	\$248.4	\$501.6	\$171.6	\$180.0	\$75.0	\$75.0	\$501.6	\$0.0
Year 5	\$150.0	\$0.9	\$1.6	\$10.0	\$81.2	\$3.2	\$20.0	\$116.9	\$33.1				\$15.0	\$15.0	\$18.1
Year 6	\$150.0	\$0.9		\$10.0	\$15.2		\$20.0	\$46.2	\$103.8		\$45.0		\$15.0	\$60.0	\$43.8
Year 7	\$150.0	\$0.9		\$10.0			\$20.0	\$31.0	\$119.0		\$45.0	\$25.0	\$15.0	\$85.0	\$34.0
Year 8	\$150.0	\$0.9		\$10.0			\$20.0	\$31.0	\$119.0	\$85.8	\$45.0	\$25.0	\$15.0	\$170.8	-\$51.8
Year 9	\$150.0	\$0.9		\$2.4			\$20.0	\$23.4	\$126.6	\$85.8	\$45.0	\$25.0	\$15.0	\$170.8	-\$44.2
Years 10-14	\$750.0	\$4.7	\$0.0	\$0.0	\$0.0	\$0.0	\$100.0	\$104.7	\$645.3	\$220.3	\$225.0	\$125.0	\$75.0	\$645.3	\$0.0
Year 10	\$150.0	\$0.9					\$20.0	\$20.9	\$129.1	\$44.1	\$45.0	\$25.0	\$15.0	\$129.1	\$0.0
Year 11	\$150.0	\$0.9					\$20.0	\$20.9	\$129.1	\$44.1	\$45.0	\$25.0	\$15.0	\$129.1	\$0.0
Year 12	\$150.0	\$0.9					\$20.0	\$20.9	\$129.1	\$44.1	\$45.0	\$25.0	\$15.0	\$129.1	\$0.0
Year 13	\$150.0	\$0.9					\$20.0	\$20.9	\$129.1	\$44.1	\$45.0	\$25.0	\$15.0	\$129.1	\$0.0
Year 14	\$150.0	\$0.9					\$20.0	\$20.9	\$129.1	\$44.1	\$45.0	\$25.0	\$15.0	\$129.1	\$0.0
Total, Years 5-14	\$1,500.0	\$9.5	\$1.6	\$42.5	\$96.4	\$3.2	\$200.0	\$353.1	\$1,146.9	\$391.9	\$405.0	\$200.0	\$150.0	\$1,146.9	\$0.0

**Ecosystem Restoration Program  
Percent Allocation, Years 5-14**

State	Federal	Water User		Local
		SWP & Other water users	CVP (via CVPIA RF)	
36%	27%	13%	13%	10%
		27%		

## **Attachment**

### **Ecosystem Restoration Program Budget Summary and Justification**

The Ecosystem Restoration Program (ERP) is designed to (1) maintain, improve, and increase aquatic and terrestrial habitats and improve ecological functions in the San Francisco Bay and Sacramento-San Joaquin Delta (Bay-Delta) to support sustainable populations of diverse and valuable plant and animal species; (2) achieve recovery of at-risk species dependent on the Delta and Suisun Bay; and (3) support the recovery of at-risk species in San Francisco Bay and in the watershed above the estuary. The ERP is essential to sustaining environmental regulatory compliance across all Bay-Delta Program elements.

ERP activities are generally identified through open and competitive processes. The ERP intends to continue emphasizing local input, integration with other activities, science (especially independent peer review) and public transparency in decisions about which specific activities to fund in support of priorities identified in ERP planning documents. The following information reflects how the ERP Implementing Agencies and CBDA expect that they and their partners anticipate allocating funding identified in the 10-Year Finance Plan.

Some assumptions were used to develop these 10-year funding targets:

- The ERP would have a minimum of \$150 million available annually.
- Based on review of ERP projects funded to date and future ERP targets and ERP/Multi-Species Conservation Strategy (MSCS) milestones, \$150 million will not be sufficient for the ERP to implement all ERP actions or meet all ERP targets by 2030. (The Draft Finance Options Report indicated that the ERP would need \$240 million annually to meet ERP targets by 2030.)
- Lacking sufficient funds to implement all actions and meet all targets, the ERP will focus on meeting ERP/MSCS milestones and on additional actions that contribute to recovery of MSCS species, especially for those species for which the CALFED Program is responsible for recovery.

The tasks and activities identified here are consistent with those identified in the ERP's Multi-Year Program Plans and Annual Annotated Budget for Implementing the Single Blueprint for Restoration and Recovery. The primary tasks are: planning, research, implementation, monitoring, and oversight and coordination. The following information is presented by task with annual projected expenditures. For those activities that fall under more than one task, the activity is listed under its primary task. Note that many planning, research, and monitoring activities occur as part of broader implementation activities, consistent with the ERP's adaptive management approach. Annual projected expenditures are based on the ERP's prior allocations, with the expectation that the ERP will need to invest a greater portion of the available funds in monitoring activities as the number of previously supported projects that require continued monitoring grows and as the program focuses on measuring program performance.

**Planning (\$4.5 mill)**

Planning activities include staff efforts in regional ERP planning, revising the Draft Stage 1 Implementation Plan, topic or watershed specific management or restoration planning, developing priorities for solicitations based on these planning documents, and grant or directed actions that primarily address local planning and stewardship programs. The ERP will continue to develop the Delta Regional Ecosystem Restoration Implementation Plan and the Suisun Marsh Implementation Plan, and expects to initiate regional plans for the Sacramento, San Joaquin, and Bay regions. These regional plans will be the primary means by which the ERP reviews and revises targets, actions, and milestones. The ERP also expects to participate in the development of additional strategy documents, similar to the Mercury Strategy, to address high priority topics. For example, ERP will develop a conservation strategy for giant garter snakes and other wetland dependent species that includes specific “wildlife friendly agriculture” implementation approaches. In addition, an implementation plan will be developed consistent with the Mercury Strategy. Another key activity will be to continue to develop and implement a strategy for improving and integrating databases fundamental to planning and tracking the success of the ERP. Other ongoing activities include planning associated with the Fish Passage Improvement Program and Yolo Basin planning.

**Research (\$5.25 mill)**

Research activities include investigations to improve understanding of the Bay-Delta ecosystem and the species that depend upon it, including physical processes, habitats, and ecosystem stressors. It also includes efforts to resolve critical uncertainties and impediments to restoration as identified in the Strategic Plan for Ecosystem Restoration. These activities are expected to complement those research activities supported by the Science Program, but to be more narrowly focused on ERP needs. Ongoing activities include the Salmon and Steelhead Genetics Archive Support, Upper Yuba River Studies, and a number of other projects including mercury and dissolved organic carbon research.

**Implementation (\$122.25 mill)**

Implementation activities include efforts towards habitat restoration, projects to improve environmental water and sediment quality, environmental education, environmental water management including water purchases, fish screen and fish ladder construction, and projects to control non-native invasive species. Where appropriate, the ERP expects to emphasize projects that assist farmers in integrating agricultural activities with these ecosystem restoration efforts. The design and engineering component of projects and the related environmental permits and documents that lead directly to implementation also are included. Project specific monitoring is included as an implementation element. In some cases, ongoing stewardship of completed restoration projects may also be included. Areas of emphasis are expected to be on MSCS-covered species, their habitats, the processes that sustain their habitats, and the stressors that affect them. These activities include completing habitat restoration activities in areas where the ERP has invested funds in pre-restoration activities, completing fish screen and passage projects initiated in prior years, continuing to implement the Non-native Invasive Species Program and the Environmental Water Program, and on following up on efforts to address the low dissolved oxygen problem in the lower San Joaquin River.

**Monitoring (\$15 mill)**

Monitoring activities include specific projects designed to gather project-specific generated data, efforts to assess restoration progress on a regional scale, and projects to continue the collection of long-term trend information for species, habitats, physical processes, and stressors. Focus will be on monitoring the status and trends of MSCS-covered species, their habitats, the processes that sustain their habitats, and the stressors that affect them. Support for monitoring also includes the Programmatic Quality Assurance and Quality Control for CALFED-related mercury research and monitoring projects, the operation and maintenance of flow monitoring stations that are part of an effort to assess and manage instream flows in five eastside Sacramento River tributaries, assembly and management of all ERP-related monitoring data, and support for a web-based data management and sharing structure.

**Oversight and Coordination (\$3 mill)**

Oversight and coordination include CALFED agency coordination for restoration, activities of CBDA regional restoration coordinators, review and assistance with regulatory compliance issues, developing annual work plans, developing the Annotated Budget for Implementing the Single Blueprint for Restoration and Recovery, administering proposal or grant solicitation processes, coordinating management of grants and contracts for restoration projects, developing cross-cut budgets, and developing and reviewing State budget change proposals. These efforts also include providing support for the ERP Science Board, the Ecosystem Restoration and Working Landscapes subcommittees of the Bay-Delta Public Advisory Committee.

<b>Ecosystem Restoration Program Tasks &amp; 10-Year Funding Targets</b> (\$ in millions) September 3, 2004	
Task	10-Year Funding Target
<b>Planning</b>	<b>\$45.00</b>
<b>Research</b>	<b>\$52.50</b>
<b>Implementation</b>	<b>\$1,222.50</b>
1. Habitat Restoration	\$452.33
2. Environmental Water and Sediment Quality	\$146.70
3. Environmental Education	\$6.11
4. Environmental Water Management	\$85.58
5. Fish Screens and Passage	\$183.38
6. Non-native Invasive Species	\$122.25
<b>Monitoring</b>	<b>\$150.00</b>
<b>Program Oversight and Coordination</b>	<b>\$30.00</b>
<b>Total, Years 5-14</b>	<b>\$1,500.00</b>

# Environmental Water Account

## **Background and Funding History**

Since 2000, funding for a pilot EWA has been provided with public funds. \$153 million in state funding has come from general fund appropriations (\$54 million) and bond funding (about \$99 million). Federal appropriations provided \$17 million over the period. The ROD states that the pilot program should be reviewed after four years to “assess the success of EWA operations” and to “determine the appropriate size and composition of an EWA, as well as the EWA’s sharing in the benefits from new facilities”. A Science Program review panel has been formed to review EWA operations and results. At the time of the 4-year evaluation of the EWA, the issue of future funding is being revisited. In addition, an operational EWA has been required as a prerequisite of the annual program-level regulatory commitments for Delta export area water supply provided in the ROD through Sept 30, 2004.

## **Proposed 10-Year Finance Plan**

The EWA has operated for the past four years as a pilot program. A set of discussions and processes are currently underway to determine the structure of the EWA for the next ten years. These processes include:

- the 10-year finance planning effort;
- a science review to assess program performance and future needs;
- modeling and cost estimation to refine planning targets for the program;
- ongoing negotiations to acquire assets for the program.

EWA managers have developed estimates of water acquisition targets for a long-term EWA. The latest available modeling analysis (which assumed Banks pumping at 8500 cfs) resulted in the following annual purchase targets: 210 TAF critical years; 230 TAF dry years; 250 TAF below normal, above normal, and wet years. These targets are estimated for delivery south of Delta – additional water is often required for conveyance losses and Delta carriage water. Water acquired is available to fishery management agencies to use to protect and restore fish populations in the Bay-Delta system and increase water supply reliability for export water users.

Not all stakeholders agree that these targets are reasonable or necessary. Periodic review of acquisition targets, how the assets are used, and the effectiveness of EWA at restoring fish populations an ongoing part of annual EWA review .

## ***Funding targets***

Funding targets (listed in Straw Proposal Funding Allocation Table) were developed based on estimated acquisition amounts and estimated unit costs. Prior to increased pumping capacity at Banks PP, the funding targets are assumed to be similar to acquisitions over the first four years of EWA operation. Costs described in the Draft Finance Options Report have been updated to reflect more recent estimates of water costs and other program costs. Costs are projected in real dollars, without inflation. Previous estimates were indexed up to 2005 dollars and unit costs

reflect more current experience with water purchases. Unit costs to acquire EWA water are assumed to decline if and when Delta pumping increases to 8500 cfs and EWA can shift more purchases to less-costly upstream sources – for this proposal, the change is assumed to occur in Year 8. Actual program costs will largely be determined by current and future water acquisition negotiations, so they remain uncertain. For example, long-term agreements may reduce total costs to some extent.

Over the 10-year planning period, the targets for delivering purchased water south of the Delta are shown as expected annual amounts. Actual amounts may vary substantially from year to year based on hydrologic and fish population conditions. Multi-year acquisitions agreements, including options agreements, will be pursued as one way to manage uncertainty. In addition a Reserve Fund is proposed to be established in Years 8 and 9 to accommodate the fluctuations and uncertainties. The total reserve fund would start at about \$25.5 million, and would be operated as a revolving fund. In years when hydrologic and fish population conditions warrant greater acquisition than the annual planned revenue, the reserve fund would provide the additional funds. Annual revenue sources would rebuild the fund in years of lower than average acquisition costs. At the end of the 10-year plan a significant amount of money is likely to remain in the fund, and would be available, for example, to carry forward into a continuing operation of EWA. Alternatively, if the EWA program were to end, the fund could be used to finance the final year of operations. Some water users are questioning the need for an EWA reserve fund, and are concerned that its availability could encourage a higher level of spending than is necessary to achieve program objectives.

No significant long-term agreements have been concluded as yet, but negotiations are underway and other opportunities are being pursued. For purposes of this plan, \$50 million is assumed to be spent on long-term asset acquisition agreements in years 6 and 7. As a result, funding targets are high in these years, but lower in later years. If additional long-term agreements are made, the annual pattern of funding targets and funding needs will be adjusted, so that money expended in early years for long-term acquisition would be offset by reduced expected annual costs in subsequent years. Correspondingly, if fewer long-term acquisitions are made, near-term costs will be lower and future, annual acquisition costs higher.

### ***Existing Available Funding***

Available funds include:

- Federal public share
  - None currently appropriated<sup>1</sup>
- State public share
  - \$7.6 million available from Proposition 204, assumed to be spent in Year 5.
  - \$82.3 million is available from Proposition 50. Spending is assumed to spread across Years 5-7 as needed to best match funding needs.

These sources leave a funding gap of \$317.5 million over the 10-year period.

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<sup>1</sup> As described above, pending legislation authorizes federal funding. This authorized spending is shown under proposed funding rather than assumed to be available.

### ***Proposed Allocation***

The proposed allocation for the EWA is a 50-50 cost allocation between public funding and export water user funding. The EWA provides both ecosystem protection and restoration benefits, and water supply reliability benefits. The 50-50 split was based on a limited available analysis of benefits that compared total EWA water management actions to the loss of water supply that would likely have resulted from Delta pumping curtailments in the absence of EWA.

The primary beneficiaries of the EWA include the general public (state and federal) due to the ecosystem benefits; and the Delta export water users due to the avoided water supply impacts due to curtailments in Delta pumping. All other water users may receive some benefits associated with the EWA because of the reduced likelihood of future ESA listing and regulatory restrictions. There is no quantitative basis at this time upon which to allocate costs to this broader group of water users. Because the program has two program objectives and because data on which to quantify the benefits are limited -- the CALFED agencies support a 50-50 cost allocation between public funding and Delta export water user funding. The export water users generally support a lower water user share and environmental groups generally support a higher water user cost share.

Some Delta export water users have indicated a willingness to contribute to the cost of EWA as part of a balanced implementation of the overall Bay-Delta Program as outlined in the ROD. The ROD set the initiation of a long-term EWA concurrent with the implementation of Delta improvements, notably the increase in Banks pumping to 8500 cfs. These improvements are expected to be implemented in Year 8. Accordingly, water users support public financing of the Program prior to Year 8. This schedule has been adopted as part of the straw proposal. In Year 8 and later, significantly more of the funding would come from water users. Environmental stakeholders do not believe that the water users' contributions should be delayed or that their overall share over the 10 years should be less than the public share.

A CALFED Bay-Delta Program authorization bill, recently passed the U.S. Senate. The bill authorizes spending on the EWA: up to \$90 million over a five-year period (through Year 10) for the federal public share of EWA costs, and up to \$10 million per year from the CVPIA Restoration Fund for any CVP water user share of EWA costs. The CVP Restoration Fund share is assumed to begin when SWP water user funding begins, in Year 8.

The Straw Proposal Funding Allocation Table shows the sources of funds currently available and additional funds proposed for the EWA 10-year plan.

Key assumptions and principals used to derive the funding allocation are:

- The level of funding proposed for authorization for the federal/public share and from the CVP Restoration Fund is used as an upper limit.
- SWP user funding begins in Year 8 and should be at least equal to the CVP user share. The Draft Finance Options Report specified that the actual CVP/SWP split should be based on periodic evaluations of how EWA water was actually used and which project

benefited. Rules need to be developed for adjusting the water users' shares according to the evaluation.

- From Year 8-14, aggregate water user share is 50% of program cost. This reflects the Equal Cost-Share allocation developed in the Draft Finance Options Report. Within the water user share, the proposal shows half state and half federal as a planning assumption. Actual split between the water users will depend on evaluation of EWA operations and benefits.
- From years 8-14, the overall state/federal/water user shares should be 25%/25%/50%. Overall cost allocation for the 10-year plan will not meet this share target, primarily because of the delay in water user contribution.

The water supply benefits of EWA were described in the Draft Finance Options Report and were used to motivate the 50-50 cost allocation between water users and the public. The water user benefit was an avoided loss of water supply that would likely have resulted from Delta pumping curtailments in the absence of EWA. Although these benefits accrue to the Delta export areas, the Restoration Fund revenues proposed to pay the CVP's share of costs are collected from water service contractors in all regions served by the CVP. This proposed finance plan should not be construed to assign benefits or payment responsibility to regions other than the Delta export contractors.

This straw proposal fills the funding gap using four sources of funds:

- \$8 million per year would be developed through SWP user fees related to mitigation for 8,500 cfs Banks. The amount is equal to the CVP contribution calculated to meet overall cost shares in Years 8-14, and authorized in pending legislation. The SWP contribution would begin in Year 8.
- CVP water users' share of \$8 million per year from the Restoration Fund begins in Year 8, concurrent with the SWP water users' share. The combined CVP and SWP amounts would bring the water users' (CVP plus SWP) share from Years 10-14 to 50%, although water users' share over the full 10-Year plan would be about 28%.
- Additional state public funding of \$81.5 million would be used in Years 8-14. Based on recent experience, this amount would likely be generated from bond funds, although it could also come from annual general fund appropriations. State "available" and "proposed" funding would be approximately \$170 million over 10 years.
- Additional federal public funding of \$124 million would include money authorized in pending legislation to be spent through Year 10, plus additional funds over the last five years of the Plan. Federal spending after year 10 would require new authorization. This total represents a large commitment of funds from the federal government, especially in years 6-7 before additional state bond funding would potentially become available. Reclamation and some stakeholders question the feasibility of such large appropriations. If the proposed level of federal funding is not provided, additional Prop 50 Chp 7(d) funding may be available or agreements for long-term acquisition of water would likely be delayed.



Overall funding of costs for the EWA 10-year plan results in an allocation of 42% of the costs to state taxpayers, 30% to federal taxpayers, and 28% to water users. Once the SWP and CVP water users begin to contribute and the reserve fund is in place, state/federal/users shares would be 25%/25%/50%. All of the proposed funding elements are contingent on periodic program reviews (see below).

### **Periodic Review**

Periodic evaluations of EWA performance and needs will be used to assess potential adjustments in the program's operations and financing. An important part of the periodic review will be the Science Program review panel's assessment of EWA and its effects. Periodic assessment will address the following issues:

- Acquisition targets;
- Use and effectiveness of assets for fish population recovery.
- Program cost estimates, including unit cost estimates for acquisition;
- Program operations costs (including administrative and environmental costs);
- Appropriate allocation of costs between SWP and CVP and between the public and water users.

### **Unresolved Issues**

- Reclamation, some CVP water users, and other stakeholders are concerned that the magnitude of Restoration Fund revenue dedicated to the EWA will delay other restoration projects that could have been funded, and may result in pressure to increase or extend Restoration Payments or other obligations of contractors. Environmental stakeholders are especially concerned that EWA's use of the Restoration Fund will displace other restoration projects and programs.
- The issue of how the EWA will benefit from the CALFED water management actions that could generate increased supplies has not been fully addressed in this straw proposal. In the ROD (page 57) it states, "As CALFED develops new water, the EWA will obtain an appropriate share in order to minimize the need for annual acquisitions and to maximize operational flexibility". Further discussion is needed to understand how to interpret this section of the ROD and if EWA will receive assets from water management actions; such as increased pumping to 8500 cfs.
- An implementing statute for Proposition 50 (Chapter 7, Section 79555a) states that a minimum proportion of Proposition 50 money spent for EWA water acquisitions applies to long-term purchases, beginning in the 2004-2005 fiscal year. The EWA is currently pursuing and negotiating such agreements.

## Environmental Water Account Straw Proposal - Funding Allocation

(\$ in millions)  
October 5, 2004

Program Year	Funding Targets <sup>1</sup>	Available Funding		Total Available	Unmet Needs	Proposed Funding for Unmet Needs <sup>5</sup>				Total Funding Proposed	Remaining Gap
		State						Water User			
		Prop 204	Prop 50 <sup>2</sup>								
Years 5-9	\$247.4	\$7.6	\$82.3	\$89.9	\$157.5	\$41.5	\$84.0	\$16.0	\$16.0	\$157.5	\$0.0
Year 5	\$40.1	\$7.6	\$24.5	\$32.1	\$8.0		\$8.0			\$8.0	\$0.0
Year 6	\$68.9		\$33.4	\$33.4	\$35.5	\$0.0	\$35.5			\$35.5	\$0.0
Year 7	\$48.9		\$24.4	\$24.4	\$24.5	\$0.0	\$24.5			\$24.5	\$0.0
Year 8	\$45.0		\$0.0	\$0.0	\$45.0	\$21.0	\$8.0	\$8.0	\$8.0	\$45.0	\$0.0
Year 9	\$44.5		\$0.0	\$0.0	\$44.5	\$20.5	\$8.0	\$8.0	\$8.0	\$44.5	\$0.0
Years 10-14	\$160.0	\$0.0	\$0.0	\$0.0	\$160.0	\$40.0	\$40.0	\$40.0	\$40.0	\$160.0	\$0.0
Year 10	\$32.0		\$0.0	\$0.0	\$32.0	\$8.0	\$8.0	\$8.0	\$8.0	\$32.0	\$0.0
Year 11	\$32.0			\$0.0	\$32.0	\$8.0	\$8.0	\$8.0	\$8.0	\$32.0	\$0.0
Year 12	\$32.0			\$0.0	\$32.0	\$8.0	\$8.0	\$8.0	\$8.0	\$32.0	\$0.0
Year 13	\$32.0			\$0.0	\$32.0	\$8.0	\$8.0	\$8.0	\$8.0	\$32.0	\$0.0
Year 14	\$32.0			\$0.0	\$32.0	\$8.0	\$8.0	\$8.0	\$8.0	\$32.0	\$0.0
Total, Years 5-14	\$407.4	\$7.6	\$82.3	\$89.9	\$317.5	\$81.5	\$124.0	\$56.0	\$56.0	\$317.5	\$0.0

Notes:

1 Uses most current estimate of water acquisition cost, not indexed for inflation. Includes unspecified long-term acquisitions in years 6 and 7 and a reserve fund in years 8 and 9. If a different amount or timing of long-term acquisitions is made, the yearly pattern of both the funding target and the funding sources would shift.

2 Prop 50 funds are shown allocated for purchase of both annual and long-term assets.

3 Could be met by future bond funding or annual appropriations.

4 Years 5-10 based on authorized funding in pending federal legislation. Years 11-14 would require new authorization.

5 Proposed funding results in shares over Years 10-14 that approximate the Equal Cost Share allocation in the Finance Options Report (Table EWA-4). SWP and CVP split of the water users' share is shown as equal, but would be subject to adjustment over time based on actual EWA operation. The same applies to years 8-9, except that public funding is used to establish the reserve fund.

6 \$10 million per year is authorized in pending federal legislation, SA 3663.

Environmental Water Account Percent Allocation - All 10 Years <sup>7</sup>			
State	Federal	Water User	
		CVP (via CVPIA RF)	Other Water Users
42.1%	30.4%	13.7%	0.0%
		27.5%	
7 Water users' share of costs (excluding the reserve fund establishment) is 50% once they begin contributing to costs, in years 8-			

Environmental Water Account Percent Allocation from Years 10-14 <sup>7</sup>			
State	Federal	Water User	
		CVP (via CVPIA RF)	Other Water Users
25.0%	25.0%	25.0%	0.0%
		50.0%	
7 Over the full 10 years, the allocation is: 43% state, 32% federal, and 26% for SWP and CVP water users.			

# Water Use Efficiency Program

## **Background and Funding History**

The goal of the Water Use Efficiency (WUE) Program is to advance implementation of cost-effective water conservation and recycling practices throughout the state that contribute to CALFED water supply reliability, water quality and ecosystem restoration goals. The WUE Program also will be working with the CALFED Program's Water Supply Subcommittee to develop implementation objectives for desalination, though this aspect of the program is in the very beginning stages of development.

Between 2000 and 2004, funding for the WUE Program has totaled \$668 million (\$213 million state, \$85 million federal, \$370 million local grant matching). Of this total, water conservation made up \$154 million (\$107 million state, \$6 million federal, \$41 million local) and water recycling totaled \$543 million (\$106 million state, \$79 million federal, \$358 million local). These amounts do not include the significant expenditures for water conservation and recycling activities carried out by public and private organizations that were not participating /cost sharing in the CALFED grants and loans.<sup>v</sup>

Between 2000 and 2004 WUE grant and loan programs have helped to implement 69 urban and 23 agricultural water conservation projects and 27 urban recycling projects. Expected annual yield from these projects is 89,000 acre-feet.<sup>vi</sup> Other significant accomplishments during this period include development of definitions and implementation approaches for appropriate measurement of agricultural and urban water uses; development of agricultural Quantifiable Objectives; and crafting a stakeholder-supported framework for an urban conservation certification program. These and other WUE Program accomplishments are discussed in greater detail in the *Water Use Efficiency Program: Multi-Year Program Plan (Years 5-8)*.

## **Proposed 10-Year Finance Plan**

### ***Proposed Funding Target***

The proposed funding target for WUE over the ten year planning period is \$2.5 billion, or, on average, \$250 million/year. Agricultural and urban conservation projects account for 33% of proposed WUE expenditures; recycling projects 58%; expenditures for desalination through Year 7, 4%; and program coordination and oversight, WUE-related science, assurances, and technical assistance 5%. It is important to note that this target currently included funding for desalination through Year 7. CBDA is still discussing with stakeholders and WUE Implementing agencies a funding target and cost allocation for Years 8-14. The November draft Finance Plan will include a funding target and cost allocation for desalination for Years 8-14. This will cause the overall funding target and funding shares to differ from what is shown in this draft.

Based on preliminary findings from the *WUE Year 4 Comprehensive Review* agricultural and urban conservation projects would generate approximately 520 thousand acre-feet of rerouted flow and 130 thousand acre-feet of water supply benefits annually by 2014.<sup>vii,viii</sup> Recycling projects would add an

additional 300 thousand acre-feet of capacity by 2014 and desalination projects would add 14 thousand acre-feet of capacity.<sup>ix</sup> In total, WUE expenditures are projected to generate just under one million acre-feet of rerouted flow and water supply benefits for the state by 2014.<sup>x</sup>

The proposed WUE funding target is based on the following considerations:

- The funding target for agricultural (\$33 mil./year) and urban conservation (\$50 mil./year) projects was informed by preliminary results from the *WUE Year 4 Comprehensive Review*. This analysis evaluated local and statewide costs and returns for different rates of WUE Program expenditures for agricultural and urban conservation projects.<sup>xi</sup> The analysis indicated the theoretical maximum annual rates of investment that would generate positive net benefits from a statewide perspective, as well as the division of benefits between local project sponsors and the CALFED Program. The funding target was set at roughly two-thirds the maximum investment rate.<sup>xii</sup> This downward adjustment was made to account for uncertainties in the analysis, the state's capacity to administer and monitor grant and loan programs with existing resources, and state/federal budget constraints.
- The target for recycling is based on adding 750 thousand acre-feet of new recycling capacity by 2030. This is the mid-point of the capacity range of cost-effective projects the Draft Finance Options Report (FOR) considered feasible by 2030.<sup>xiii</sup> Prorating the 2030 target of 750 thousand acre-feet produced the ten-year target of 300 thousand acre-feet of new recycling capacity by 2014. This capacity target is consistent with findings from the Bay Area and Southern California regional recycling studies for near-term implementation of recycling projects.<sup>xiv</sup> The ten-year funding target of \$1.5 billion (\$150 mil./year) for recycling is based on an average capital cost of \$5,000/AF of added capacity.<sup>xv</sup>
- Approximately \$48 million is available in Proposition 50 for desalination project grants. The authorizing legislation requires grant recipients match dollar-for-dollar desalination grant awards. Thus a total of \$96 million is available from Proposition 50 and matching funds. The proposed target through Year 7 assumes reliance on these funds. CBDA is still discussing with stakeholders and WUE Implementing agencies a funding target and cost allocation for Years 8-14. Based on desalination cost data compiled by DWR, and assuming 85% of funds are used for construction of new desalination capacity, the proposed funding through Year 7 would add approximately 14 thousand acre-feet of desalination capacity. The total amount of new capacity that could be funded by Year 14 is still under discussion.
- Funding targets for assurances, technical assistance, and WUE-related science are tied to WUE Program cost projections to implement appropriate measurement programs, urban certification, continue development of Quantifiable Objectives, and support WUE monitoring, performance and science review, CALFED measurement and program coordination tasks. In total, these activities are expected to cost on average about \$12 million per year.

### ***Existing Funding Available***

WUE has available approximately \$300 million in existing state/federal sources of funding over the next ten years. Almost all of this is earmarked for grant programs. Adding the expected local match to existing state/federal sources for recycling and desalination, WUE has available approximately

\$550 million – or 22% of the 10-year funding target. Given existing funding sources, WUE faces a funding shortfall of approximately \$2.0 billion for the period 2005-2014.

### ***Proposed Funding Allocation***

Costs for WUE over the next ten years will be split between (1) the state government, (2) the federal government, and (3) local implementing agencies and organizations (through WUE grant matches and loans). The proposed cost allocations for WUE vary by program component and are as follows:

#### *Agricultural and Urban Conservation Projects*

Cost shares will be based on the expected distribution of local and statewide benefits and will vary from project to project. These cost shares will be determined through competitive proposal solicitation processes for each funding year. A fixed cost share for agricultural and urban conservation projects is not proposed.

Preliminary results from the *WUE Year 4 Comprehensive Review* as well as a review of previous grant funding awards were used to predict the average cost share for urban and agricultural projects assuming a policy of setting cost shares according to the distribution of statewide and local benefits. This was necessary in order to forecast state, federal, and local expenditures over the 10-year planning period.

Based on this analysis, the expected average cost share for urban projects over the 10-year period is:

- State – 20%
- Federal – 20%
- Local implementing agencies/organizations – 60%

The expected average cost share for agricultural projects over the 10-year period is:

- State – 30%
- Federal – 30%
- Local implementing agencies/organizations – 40%

These allocations are informed by the following:

- The expected average shares are based on the *WUE Year 4 Comprehensive Review*'s assessment of local and statewide benefits generated by a range of agricultural and urban conservation investments throughout the state as well as a review of results from previous competitive conservation grant awards. The proposed allocations match the distribution of local and statewide benefits estimated by the agricultural and urban conservation investment models.
- The higher local cost share anticipated for urban projects reflects (1) the higher marginal value of water in urban uses, which results in urban projects producing larger local benefits than agricultural projects; and (2) the lower cost to the state/federal governments to achieve flow/timing objectives through agricultural conservation projects compared to urban

conservation projects.

- The average cost share between state/federal and local funding sources for all conservation projects (urban + agricultural) is approximately 50% state/federal and 50% local.
- The allocations result in nearly equal amounts of state/federal funding going to agricultural and urban conservation projects.<sup>xvi</sup> State/federal funding for conservation projects is approximately \$400 million over ten years, with 50% put towards urban conservation projects and 50% put towards agricultural conservation projects.<sup>xvii</sup>
- The allocations recognize both the benefits conservation can provide local water users as well as their potential to generate broad public benefits through improved in-stream flows, water quality, and regional supply reliability.
- The allocation assigns 50% of state/federal costs to the state and 50% to the federal governments. This division of cost reflects state/federal costs shares for supply reliability and ecosystem public benefits within other program elements; follows the state/federal cost split for WUE in the ROD; and reflects the significant federal interest in the CVP as well as actions benefiting federally listed species.
- CBDA is not proposing fixed local cost shares for urban and agricultural conservation projects. Local cost shares will be determined on a project-by-project basis through competitive proposal solicitation processes. The shares shown above reflect the average local cost shares expected over the 10-year planning period based on preliminary results from conservation investment models developed for the *WUE Year 4 Comprehensive Review*.

The resulting allocations for the urban and agricultural grant/loan components of WUE are shown in Tables 1 and 2, respectively.

### *Recycling Projects*

The Draft FOR presented three options for allocating recycling project capital costs between state, federal, and local project participants. Of these three, two are receiving the most focus. The first maintains current recycling cost sharing policy allocating approximately 45% of the costs to the state and federal governments and 55% to local project sponsors. The second allocation reduces the state/federal share to 20% and increases the local share to 80%. The second approach is based on the Draft FOR's assessment of local benefits of recycling for projects likely to be implemented over the next ten years. This assessment indicated that local benefits were sufficient to recover project costs and that a benefits-based allocation would reduce the public cost share. Various stakeholders have expressed concern that the Draft FOR's assessment does not fully account for implementation barriers and transaction costs that prevent the local benefits of these projects from being fully captured. They have also expressed concern that the assessment undervalues the broad public benefits recycling projects provide by reducing demand, particularly from Southern California and Bay Area urban areas, for Delta export water.

CBDA is still discussing with stakeholders and WUE Implementing Agencies appropriate cost shares for recycling and is not putting forward a straw cost sharing proposal for recycling at this time. Table 3 shows available state/federal funds, expected local matches to these funds, and the resultant funding

gap of approximately \$1.2 billion for recycling. CBDA expects to put forward a cost allocation proposal for recycling in November.

### *Desalination Projects*

Proposition 50 will fund the desalination grant program through Year 7. Grant funding for desalination projects under Proposition 50 requires a dollar-for-dollar match. These shares only cover project capital costs. It is assumed that operation and maintenance costs would be 100% locally funded. The proposed allocation of capital costs is shown in Table 4.

CBDA is still discussing with stakeholders and WUE Implementing agencies a funding target and cost allocation for Years 8-14. A straw proposal for Years 8-14 will be included in the November draft Finance Plan.

### *Technical Assistance, Assurances, Science, Oversight and Coordination*

The benefits generated by this category of program activity are broadly distributed across all water users and the general public. For example, all water users benefit from research, pilot, and monitoring projects that increase understanding of performance, cost, and implementation issues for different conservation, recycling, or desalination technologies or implementation strategies. Likewise, WUE assurance programs (e.g. urban certification, Quantifiable Objectives, Appropriate Measurement) can benefit all water users by promoting improvements in water management and implementation of best management practices that contribute to meeting CALFED Program objectives. These benefits satisfy the definition of a public good and therefore costs for these program activities are assigned 50% to the state and 50% to the federal governments.

The reader should note that the proposed cost allocation for technical assistance, assurances, science, and oversight and coordination does not achieve the 10-year funding target of \$120 million. It achieves about 93% of this amount because of funding shortfalls in Years 5-7. The most significant shortfall occurs in Year 5 where it is assumed federal funding will be limited to existing authorizations of about \$1 million and state funding will be limited to existing general fund, ERPA, and proposition appropriations totaling about \$5 million. Shortfalls in Years 6 and 7 are substantially less only because the allocation assumes new federal appropriations will cover the federal share starting in Year 6. This is shown in Table 5.

### *Overall Cost Allocation for WUE*

Table 6 shows the allocation of costs for all WUE Program components combined. The large funding gap shown in Table 6 is due to the fact that no allocation for recycling has been proposed. This also means that the program-wide cost shares for WUE shown in Table 6 could change substantially once a cost allocation proposal for recycling is put forward. The reader should also note that Table 6 currently does not show funding for desalination beyond Year 7 because the target and cost shares are still under development.



## **Unresolved Issues**

There are three key issues related to the WUE funding proposal still to be resolved. These are as follows:

- **Recycling cost shares** – As discussed above, CBDA is not proposing a cost share for recycling projects at this time. CBDA is still discussing with stakeholders and WUE Implementing Agencies appropriate cost shares for recycling. CBDA expects to put forward a proposal for allocating recycling costs in November.
- **Desalination target and cost shares** – Proposition 50 and local contributions are proposed to fund desalination through Year 7. Stakeholders and WUE Implementing Agencies are still discussing funding target and cost shares for Years 8-14. CBDA expects to put forward a proposal for desalination for Years 8-14 in November.
- **Federal appropriations** – The finance proposal for WUE will potentially require significant federal appropriations. Even without considering federal participation in recycling projects, there is some uncertainty whether federal appropriations of this magnitude are realistic. Historically there has not been significant federal participation in conservation grant funding. There is currently no federal authorization to co-fund a CALFED desalination grant program. Federal funding for recycling projects requires congressional authorization through the Title XVI program, which creates additional federal funding uncertainty. The Bureau of Reclamation has suggested that more realistic federal funding assumptions would be \$2-\$4 million/year for conservation projects and \$10-\$15 million for recycling. The Bureau of Reclamation did not comment on federal funding for desalination.

## End Notes

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<sup>v</sup> Local expenditures for urban conservation projects made outside of the WUE program have substantially exceeded the local contribution shown in the text.

<sup>vi</sup> California Bay-Delta Authority, “*Water Use Efficiency Program: Multi-Year Program Plan (Years 5-8)*,” July 2004.

<sup>vii</sup> Savings in recoverable losses (rerouted flow) represent a much larger share of the total reductions in water diversions and use that result from agricultural WUE projects. Because these savings reduce stream diversions, they are available to meet flow-timing objectives. Recoverable losses are almost always reused in some fashion by other users: they help recharge groundwater, they provide water for riparian vegetation along canals and drains, and they are used for irrigation or municipal uses downstream. Projects that provide savings in recoverable losses will need to be carefully reviewed to avoid significant impacts on these other uses and to maximize the flow-timing and water quality benefits provided.

<sup>viii</sup> The investment models used to estimate agricultural conservation project costs and benefits did not include Imperial County because the QSA and water transfer agreements already account for such a large share of agricultural conservation potential in this region. Implicit in this modeling approach is the judgment that most agricultural conservation projects in Imperial County will not be funded through the WUE Program.

<sup>ix</sup> The projected increment of desalination capacity is only for projects funded through Year 7. When a funding proposal for Years 8-14 is put forward this will increase.

<sup>x</sup> This amount would be incremental to conservation, recycling, and desalination investments made without WUE Program participation. For example, preliminary findings from the *WUE Year 4 Comprehensive Review* indicate that locally cost-effective urban BMP implementation could generate more than 700 thousand acre-feet in water savings statewide by 2014.

<sup>xi</sup> The urban conservation investment models allocate over 50% of urban grant funds to the Central Valley, primarily for meter retrofit projects. While these projects generate significant water supply and flow/timing benefits, some stakeholders have expressed concern that allocating a large share of grant funds for meter retrofit projects would prevent projects being implemented in other regions of the state where they are needed.

<sup>xii</sup> The agricultural conservation investment models assume WUE grant programs will co-fund both district-level and on-farm conservation projects. Using state funds to pay for on-farm conservation projects has been problematic in the past. Using state grant funds for these projects will require resolving a number of legal and institutional issues. Directing funding to on-farm investment has been less a problem on the federal side, though coordinating this funding through the CALFED Program has been a challenge.

<sup>xiii</sup> The State Recycling Task Force report suggested it would be feasible to add up to 1.5 million acre-feet of new recycling capacity by 2030. Based on a review of regional recycling studies for the Bay Area and Southern California, the Draft FOR indicated that implementation of the most cost-effective projects could add between 500 thousand and one million acre-feet of new capacity by 2030.

<sup>xiv</sup> These studies identified projects that could be implemented over the next 10-15 years that would add approximately 450 thousand acre-feet at an average capital cost of about \$5000/AF of new capacity. SWRCB staff has suggested \$6500/AF for capacity may be a better estimate for planning, based on more recent grant data. This would increase the funding target from \$2.5 billion to about \$3.0 billion.

<sup>xv</sup> Note this cost is not inclusive of operation and maintenance costs, which would be borne by the local project operator.

<sup>xvi</sup> Slightly more state funding is available for agricultural than for urban grant programs (\$206 million versus \$198 million) because of how Propositions 13 and 50 funding is allocated in Year 5. These allocations reflect the FY2005 budget and therefore are taken as givens.

<sup>xvii</sup> This funding would be available for implementation, pilot, research, and monitoring/evaluation projects co-funded with grants. The *WUE Year 4 Comprehensive Review*'s assessment assumes that, on average, 85% of grant funds will be put towards conservation implementation projects and the remaining 15% would be used to co-fund pilot, research, and monitoring/evaluation projects.

**Table 1. Water Use Efficiency Program  
Straw Proposal - Urban Conservation Project Funding Allocation**  
(\$ in millions)  
October 5, 2004

Program Year	Funding Targets	Available Funding			Total Available	Unmet Needs	Proposed Funding for Unmet Needs			Total Funding Proposed	Remaining Gap
		State		Federal							
		Prop 13	Prop 50	Approps.							
Years 5-9	\$250.0	\$0.2	\$51.6	\$0.7	\$52.5	\$197.5	\$5.3	\$40.0	\$146.7	\$192.0	\$5.5
Year 5	\$50.0	\$0.2	\$16.9	\$0.7	\$17.8	\$32.2			\$26.7	\$26.7	\$5.5
Year 6	\$50.0		\$10.0		\$10.0	\$40.0		\$10.0	\$30.0	\$40.0	\$0.0
Year 7	\$50.0		\$10.0		\$10.0	\$40.0		\$10.0	\$30.0	\$40.0	\$0.0
Year 8	\$50.0		\$10.0		\$10.0	\$40.0	\$0.0	\$10.0	\$30.0	\$40.0	\$0.0
Year 9	\$50.0		\$4.7		\$4.7	\$45.3	\$5.3	\$10.0	\$30.0	\$45.3	\$0.0
Years 10-14	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$250.0	\$50.0	\$50.0	\$150.0	\$250.0	\$0.0
Year 10	\$50.0				\$0.0	\$50.0	\$10.0	\$10.0	\$30.0	\$50.0	\$0.0
Year 11	\$50.0				\$0.0	\$50.0	\$10.0	\$10.0	\$30.0	\$50.0	\$0.0
Year 12	\$50.0				\$0.0	\$50.0	\$10.0	\$10.0	\$30.0	\$50.0	\$0.0
Year 13	\$50.0				\$0.0	\$50.0	\$10.0	\$10.0	\$30.0	\$50.0	\$0.0
Year 14	\$50.0				\$0.0	\$50.0	\$10.0	\$10.0	\$30.0	\$50.0	\$0.0
Total, Years 5-14	\$500.0	\$0.2	\$51.6	\$0.7	\$52.5	\$447.5	\$55.3	\$90.0	\$296.7	\$442.0	\$5.5

<b>Water Use Efficiency Program Urban Conservation: Percent Allocation Years 5-14</b>		
State	Federal	Local
22%	18%	60%

**Table 2. Water Use Efficiency Program  
Straw Proposal - Ag Conservation Project Funding Allocation**  
(\$ in millions)  
October 5, 2004

Program Year	Funding Targets	Available Funding			Total Available	Unmet Needs	Proposed Funding for Unmet Needs			Total Funding Proposed	Remaining Gap
		State		Federal							
		Prop 13	Prop 50	Approps.							
Years 5-9	\$166.5	\$22.5	\$36.7	\$0.7	\$59.9	\$106.6	\$0.0	\$40.0	\$66.6	\$106.6	\$0.0
Year 5	\$33.3	\$8.4	\$10.8	\$0.7	\$20.0	\$13.3			\$13.3	\$13.3	\$0.0
Year 6	\$33.3	\$3.5	\$6.5		\$10.0	\$23.3		\$10.0	\$13.3	\$23.3	\$0.0
Year 7	\$33.3	\$3.5	\$6.5		\$10.0	\$23.3		\$10.0	\$13.3	\$23.3	\$0.0
Year 8	\$33.3	\$3.5	\$6.5		\$10.0	\$23.3	\$0.0	\$10.0	\$13.3	\$23.3	\$0.0
Year 9	\$33.3	\$3.5	\$6.5		\$10.0	\$23.3	\$0.0	\$10.0	\$13.3	\$23.3	\$0.0
Years 10-14	\$166.5	\$0.0	\$14.9	\$0.0	\$14.9	\$151.6	\$35.1	\$50.0	\$66.6	\$151.6	\$0.0
Year 10	\$33.3		\$10.0		\$10.0	\$23.3	\$0.0	\$10.0	\$13.3	\$23.3	\$0.0
Year 11	\$33.3		\$4.9		\$4.9	\$28.4	\$5.1	\$10.0	\$13.3	\$28.4	\$0.0
Year 12	\$33.3				\$0.0	\$33.3	\$10.0	\$10.0	\$13.3	\$33.3	\$0.0
Year 13	\$33.3				\$0.0	\$33.3	\$10.0	\$10.0	\$13.3	\$33.3	\$0.0
Year 14	\$33.3				\$0.0	\$33.3	\$10.0	\$10.0	\$13.3	\$33.3	\$0.0
Years 5-14	\$333.0	\$22.5	\$51.6	\$0.7	\$74.8	\$258.2	\$35.1	\$89.9	\$133.2	\$258.2	\$0.0

<b>Water Use Efficiency Program</b> <b>Agricultural Conservation: Percent Allocation</b> <b>Years 5-14</b>		
State	Federal	Local
33%	27%	40%

### Table 3. Water Use Efficiency Program Recycling Available Funding

(\$ in millions)  
October 5, 2004

Program Year	Funding Targets	Available Funding			Total Available	Unmet Needs	Proposed Funding for Unmet Needs	Total Funding Proposed	Remaining Gap
		State		Federal					
		Prop 13	Prop 50	Approps.					
Years 5-9	\$750.0	\$21.7	\$44.6	\$10.0	\$76.3	\$673.7	\$172.5	\$172.5	\$501.2
Year 5	\$150.0	\$21.7		\$10.0	\$31.7	\$118.3	\$38.7	\$38.7	\$79.6
Year 6	\$150.0		\$10.7		\$10.7	\$139.3	\$32.1	\$32.1	\$107.2
Year 7	\$150.0		\$11.0		\$11.0	\$139.0	\$33.0	\$33.0	\$106.0
Year 8	\$150.0		\$11.3		\$11.3	\$138.7	\$33.9	\$33.9	\$104.9
Year 9	\$150.0		\$11.6		\$11.6	\$138.4	\$34.8	\$34.8	\$103.6
Years 10-14	\$750.0	\$0.0	\$10.2	\$0.0	\$10.2	\$739.8	\$30.7	\$30.7	\$709.1
Year 10	\$150.0		\$10.2		\$10.2	\$139.8	\$30.7	\$30.7	\$109.1
Year 11	\$150.0				\$0.0	\$150.0		\$0.0	\$150.0
Year 12	\$150.0				\$0.0	\$150.0		\$0.0	\$150.0
Year 13	\$150.0				\$0.0	\$150.0		\$0.0	\$150.0
Year 14	\$150.0				\$0.0	\$150.0		\$0.0	\$150.0
Years 5-14	\$1,500.0	\$21.7	\$54.8	\$10.0	\$86.5	\$1,413.5	\$203.2	\$203.2	\$1,210.3

Notes:

1. Local match in Year 5 assumes an average state/federal cost share of 45%.
2. Local match in Year 6-10 assumes a 25% state cost share, per draft final SWRCB Prop. 50 Recycling Grant Guidelines.

### Water Use Efficiency Program Percent Allocation - Available Funding Years 5-14

State	Federal	Local
26%	3%	70%

**Water Use Efficiency Program**  
**Recycling Cost Share Example 2: state/federal/local = 22.5/22.5/55**  
(\$ in millions)  
October 5, 2004

Program Year	Funding Targets	Available Funding			Total Available	Unmet Needs	Proposed Funding for Unmet Needs			Total Funding proposed	Remaining Gap
		State		Federal			State	Federal	Local		
		Prop 13	Prop 50	Approps.							
Years 5-9	\$750.0	\$21.7	\$44.6	\$10.0	\$76.3	\$673.7	\$44.6	\$135.0	\$312.8	\$492.4	\$181.4
Year 5	\$150.0	\$21.7		\$10.0	\$31.7	\$118.3			\$38.7	\$38.7	\$79.6
Year 6	\$150.0		\$10.7		\$10.7	\$139.3		\$33.8	\$54.3	\$88.1	\$51.2
Year 7	\$150.0		\$11.0		\$11.0	\$139.0		\$33.8	\$54.7	\$88.4	\$50.6
Year 8	\$150.0		\$11.3		\$11.3	\$138.7	\$22.5	\$33.8	\$82.5	\$138.7	\$0.0
Year 9	\$150.0		\$11.6		\$11.6	\$138.4	\$22.1	\$33.8	\$82.5	\$138.4	\$0.0
Years 10-14	\$750.0	\$0.0	\$10.2	\$0.0	\$10.2	\$739.8	\$158.5	\$168.8	\$412.5	\$739.8	\$0.0
Year 10	\$150.0		\$10.2		\$10.2	\$139.8	\$23.5	\$33.8	\$82.5	\$139.8	\$0.0
Year 11	\$150.0				\$0.0	\$150.0	\$33.8	\$33.8	\$82.5	\$150.0	\$0.0
Year 12	\$150.0				\$0.0	\$150.0	\$33.8	\$33.8	\$82.5	\$150.0	\$0.0
Year 13	\$150.0				\$0.0	\$150.0	\$33.8	\$33.8	\$82.5	\$150.0	\$0.0
Year 14	\$150.0				\$0.0	\$150.0	\$33.8	\$33.8	\$82.5	\$150.0	\$0.0
Years 5-14	\$1,500.0	\$21.7	\$54.8	\$10.0	\$86.5	\$1,413.5	\$203.1	\$303.8	\$725.3	\$1,232.1	\$181.4

**Water Use Efficiency Program**  
**Recycling Example 2: Percent Allocation**  
**Years 5-14**

State	Federal	Local
21.2 %	23.8 %	55 %

**Table 4. Water Use Efficiency Program  
Straw Proposal - Desalination Project Funding Allocation**  
(\$ in millions)  
October 5, 2004

Program Year	Funding Targets	Available Funding	Total Available	Unmet Needs	Proposed Funding for Unmet Needs			Total Funding Proposed	Remaining Gap
		State							
		Prop 50							
Years 5-9	\$96.0	\$48.0	\$48.0	TBD	TBD	TBD	TBD	TBD	
Year 5	\$32.0	\$16.0	\$16.0	\$16.0			\$16.0	\$16.0	\$0.0
Year 6	\$32.0	\$16.0	\$16.0	\$16.0			\$16.0	\$16.0	\$0.0
Year 7	\$32.0	\$16.0	\$16.0	\$16.0			\$16.0	\$16.0	\$0.0
Year 8	TBD		\$0.0	TBD	TBD	TBD	TBD	TBD	TBD
Year 9	TBD		\$0.0	TBD	TBD	TBD	TBD	TBD	TBD
Years 10-14	TBD	\$0.0	\$0.0	TBD	TBD	TBD	TBD	TBD	TBD
Year 10	TBD		\$0.0	TBD	TBD	TBD	TBD	TBD	TBD
Year 11	TBD		\$0.0	TBD	TBD	TBD	TBD	TBD	TBD
Year 12	TBD		\$0.0	TBD	TBD	TBD	TBD	TBD	TBD
Year 13	TBD		\$0.0	TBD	TBD	TBD	TBD	TBD	TBD
Year 14	TBD		\$0.0	TBD	TBD	TBD	TBD	TBD	TBD
Total, Years 5-14	TBD	\$48.0	\$48.0	TBD	TBD	TBD	TBD	TBD	TBD

Notes:

1. A proposed funding target for Years 8-14 will be included in the November draft Finance Plan.

2. The cost shares shown above are for Years 5-7 only.

Water Use Efficiency Program Desalination: Percent Allocation <u>Years 5-7 Only</u>	
State	Local
50.0%	50%

**Table 5. Water Use Efficiency Program**  
**Straw Proposal - Tech. Asst., Assurances, Science, Oversight & Coord. Funding Allocation**  
(\$ in millions)  
October 5, 2004

Program Year	Funding Targets	Available Funding				Total Available	Unmet Needs	Proposed Funding for Unmet Needs		Total Funding Proposed	Remaining Gap
		State			Federal						
		GF	ERPA	Prop 50	Approps.						
Years 5-9	\$60.0	\$7.2	\$8.5	\$5.5	\$1.0	\$22.2	\$37.8	\$5.7	\$24.0	\$29.7	\$8.1
Year 5	\$12.0	\$1.4	\$1.7	\$1.9	\$1.0	\$6.0	\$6.0				\$6.0
Year 6	\$12.0	\$1.4	\$1.7	\$1.8		\$4.9	\$7.1		\$6.0	\$6.0	\$1.1
Year 7	\$12.0	\$1.4	\$1.7	\$1.8		\$4.9	\$7.1		\$6.0	\$6.0	\$1.1
Year 8	\$12.0	\$1.4	\$1.7			\$3.1	\$8.9	\$2.9	\$6.0	\$8.9	\$0.0
Year 9	\$12.0	\$1.4	\$1.7			\$3.1	\$8.9	\$2.9	\$6.0	\$8.9	\$0.0
Years 10-14	\$60.0	\$7.2	\$8.5	\$0.0	\$0.0	\$15.7	\$44.3	\$14.3	\$30.0	\$44.3	\$0.0
Year 10	\$12.0	\$1.4	\$1.7			\$3.1	\$8.9	\$2.9	\$6.0	\$8.9	\$0.0
Year 11	\$12.0	\$1.4	\$1.7			\$3.1	\$8.9	\$2.9	\$6.0	\$8.9	\$0.0
Year 12	\$12.0	\$1.4	\$1.7			\$3.1	\$8.9	\$2.9	\$6.0	\$8.9	\$0.0
Year 13	\$12.0	\$1.4	\$1.7			\$3.1	\$8.9	\$2.9	\$6.0	\$8.9	\$0.0
Year 14	\$12.0	\$1.4	\$1.7			\$3.1	\$8.9	\$2.9	\$6.0	\$8.9	\$0.0
Years 5-14	\$120.0	\$14.4	\$17.0	\$5.5	\$1.0	\$37.9	\$82.1	\$20.0	\$54.0	\$74.0	\$8.1

<b>Water Use Efficiency Program</b> <b>Tech. Asst., Assurances, Science, Measurement, O&amp;C: Percent Allocation</b> <b>Years 5-14</b>	
State	Federal
51%	49%



**Table 6. Water Use Efficiency Program**  
**Straw Proposal - Funding Allocations for All WUE Program Components**  
(\$ in millions)  
October 5, 2004

Program Year	Funding Targets	Available Funding					Total Available	Unmet Needs	Proposed Funding for Unmet Needs			Total Funding Proposed	Remaining Gap
		State				Federal							
		GF	Prop 204 ERPA	Prop 13	Prop 50	Approps.							
Years 5-9	\$1,322.5	\$7.2	\$8.5	\$44.4	\$186.3	\$12.4	\$258.9	\$1,063.6	\$11.0	\$104.0	\$433.8	\$548.7	\$514.9
Year 5	\$277.3	\$1.4	\$1.7	\$30.3	\$45.6	\$12.4	\$91.5	\$185.8	\$0.0	\$0.0	\$94.7	\$94.7	\$91.1
Year 6	\$277.3	\$1.4	\$1.7	\$3.5	\$45.0	\$0.0	\$51.6	\$225.7	\$0.0	\$26.0	\$91.4	\$117.4	\$108.3
Year 7	\$277.3	\$1.4	\$1.7	\$3.5	\$45.3	\$0.0	\$51.9	\$225.4	\$0.0	\$26.0	\$92.3	\$118.3	\$107.1
Year 8	\$245.3	\$1.4	\$1.7	\$3.5	\$27.8	\$0.0	\$34.4	\$210.9	\$2.9	\$26.0	\$77.2	\$106.0	\$104.9
Year 9	\$245.3	\$1.4	\$1.7	\$3.5	\$22.8	\$0.0	\$29.4	\$215.9	\$8.2	\$26.0	\$78.1	\$112.3	\$103.6
Years 10-14	\$1,226.5	\$7.2	\$8.5	\$0.0	\$25.1	\$0.0	\$40.8	\$1,185.7	\$99.3	\$130.0	\$247.3	\$476.6	\$709.1
Year 10	\$245.3	\$1.4	\$1.7	\$0.0	\$20.2	\$0.0	\$23.4	\$221.9	\$12.9	\$26.0	\$74.0	\$112.9	\$109.1
Year 11	\$245.3	\$1.4	\$1.7	\$0.0	\$4.9	\$0.0	\$8.0	\$237.3	\$18.0	\$26.0	\$43.3	\$87.3	\$150.0
Year 12	\$245.3	\$1.4	\$1.7	\$0.0	\$0.0	\$0.0	\$3.1	\$242.2	\$22.8	\$26.0	\$43.3	\$92.2	\$150.0
Year 13	\$245.3	\$1.4	\$1.7	\$0.0	\$0.0	\$0.0	\$3.1	\$242.2	\$22.8	\$26.0	\$43.3	\$92.2	\$150.0
Year 14	\$245.3	\$1.4	\$1.7	\$0.0	\$0.0	\$0.0	\$3.1	\$242.2	\$22.8	\$26.0	\$43.3	\$92.2	\$150.0
Years 5-14	\$2,549.0	\$14.4	\$17.0	\$44.4	\$211.5	\$12.4	\$299.8	\$2,249.2	\$110.4	\$233.9	\$681.1	\$1,025.3	\$1,223.9

Notes:

1. The rollup of WUE costs does not include funding targets or allocations for desalination beyond Year 7. A proposed desalination-funding target for Years 8-14 will be included in the November draft Finance Plan.
2. The rollup of WUE costs does not include a cost allocation for recycling other than for available funding. This results in the substantial funding gap shown by the table. A proposed cost allocation for recycling will be included in the November draft Finance Plan.

<b>Water Use Efficiency Program</b> <b>Percent Allocation</b> <b>Years 5-14</b>		
State	Federal	Local
<b>30%</b>	<b>19%</b>	<b>51%</b>

# **Watershed Program**

## **Background and Funding History**

The Watershed Program includes ongoing technical assistance, science, and administrative functions, but the largest share of program funding is provided for financial assistance for watershed assessments and local projects. During the program's initial four years of activity, funding has averaged about \$27 million per year (ranging from a low of \$14 million to a high of \$42 million). Roughly 75% of the funding has been provided by State funds (bonds and General Funds) and a fourth provided by grant matching through local, federal, and water user sources. This amount does not include the costs of watershed protection and restoration activities carried out by other public and private organizations, especially local government entities, independent of the CALFED Bay-Delta Program.

## **Proposed 10-Year Finance Plan**

### ***Funding target***

An average of \$25 million per year is targeted for the Watershed Program over years 5-14. On average, \$19 million of this spending would come in programs and projects with local partners: competitive grants, directed grants, and support for local capacity-building. The remainder would fund other assistance programs, program evaluation, science, and administration.

The funding target was developed using cost estimates for the various Program components. Although the cost estimates are constant over the 10-year plan (except for an annual inflation adjustment), they include relative shifts in Program emphasis during the period. Early year spending has a greater emphasis on competitive grants, watershed assessments, and capacity building. Over time a greater portion is expected to be spent on restoration projects, including competitive grants and directed grants. Actual spending may vary from year to year due to changing mixes of projects and local cost shares proposed by project partners.

There have been numerous debates regarding the appropriate funding target for the watershed program. The general direction from the Interagency Watershed Action Team (IWAT) consisting of state and federal agencies, and the Watershed subcommittee was to continue with the funding targets from the first seven years established in the ROD and extend these out over the new ten year finance period. This averages out to roughly \$40 million per year, which the Draft Finance Options Report (FOR) uses for the high end of the range of costs. Initially Authority staff proposed \$10 million dollar cost estimate, using the low range of the Draft FOR. The Watershed subcommittee believed that the \$10 million figure was too low, but understood the current fiscal constraints and therefore suggested that a preliminary target of \$25 million per year be used for now, while more refined cost estimates are being developed. See the attachment, which provides a breakdown of costs associated with the \$25 million per year target. The Watershed Sub Committee, implementing agencies and program staff, are reviewing, the funding needs of the program, to more specifically determine and assign costs to major program

actions over the next ten years. The review will focus on the cost to 1) complete watershed assessment and planning efforts throughout the solution area, either through competitive grants or directed actions, 2) establish and sustain an adequate level of technical assistance to local watershed programs, 3) fully implement the Watershed Programs specific science agenda, including long term monitoring of reference watersheds, and other actions identified in the Programs current multi year plan.

This review will help to determine if the \$25 million target is adequate to carry out program activities over the next ten years, and could identify in the November draft a funding target higher than currently proposed. Any new funding target will be reviewed by CALFED agencies and stakeholders prior to inclusion in the November finance plan.

### ***Existing Available Funds***

- Federal public share
  - None currently available
- State public share
  - \$0.1 million currently appropriated from the General Fund in Year 5. This amount is assumed to continue for Years 6-14.
  - \$38.3 million is available from Proposition 50 and an additional \$7.7 million of Watershed Program funds has been appropriated but not yet spent. The total of \$46 million is assumed to be spent in Years 5-8, but it could be allocated across years differently to best match funding needs.

These sources total \$47 million and leave a funding gap of \$203 million over the 10-year period. Note that this gap does not account for the expected contribution by local partners to match available Proposition 50 spending.

### ***Proposed Funding Allocation***

The Straw Proposal Funding Allocation Table shows the sources of funds proposed for the Watershed Program 10-year plan. Key principles and assumptions used to derive the funding allocation are:

- A target average 20% cost share from local partners will be pursued for grants and technical assistance.
  - This includes a 5% cost share from local government agencies, and a 15% cost share from other project-specific partners. Local government agencies with watershed management responsibilities already provide significant protection and restoration activities. Many of these activities provide broad public benefits beyond the geographic responsibility of the local agency, yet it often receives only small or no financial assistance from other funding sources. These local agencies are very often quite constrained financially, so their ability to participate in additional projects, even on a cost-share basis, is limited. For these reasons, a relatively small cost share is proposed.

- The other project-specific partners could include local agencies, local private entities that perceive a benefit from participation, and broader regional entities with an interest in watershed protection and restoration. These partners are expected to participate at a level commensurate with their perceived benefits. Based on the first four years of grant funding, a 15% cost share is proposed. The Program will use its competitive grant process to encourage greater cost-sharing by project-specific partners.
- Actual cost shares will vary from project to project and will be based on the expected distribution of local and statewide benefits. For competitive grants, these cost shares will be determined through the proposal solicitation processes for each funding year. For directed actions and capacity-building activities, the appropriate shares will be determined through negotiation with the local partners. A fixed cost share for projects is not proposed.
- Appropriate cost shares for a local agency will depend on the project proposed and on the agency's circumstances. Considerations will include: the relative split of local vs. regional or statewide benefits; financial or other resource constraints faced by the local agency and its taxpayers or ratepayers; and considerations of environmental justice.
- The remaining 80% of costs for grants and technical assistance would be split between state and federal public sources. The Draft Finance Options Report argued that watershed protection and restoration activities benefit both state and national public interests. Therefore the public share is allocated 40% state and 40% federal. This allocation would begin in Year 6.
- Identifying federal funding sources is expected to be challenging. Existing federal programs provide funding for watershed-related activities, but are not primarily designed to support the goals and priorities of the CBDA Watershed Program. It may be possible to identify portions of existing federal programs that meet Program objectives, but earmarking those funds for Watershed Program activities is likely to face agency resistance.

Based on these principles and assumptions, the straw proposal fills the funding gap using four sources of funds:

- § Almost \$4 million per year in cost share by local and project-specific partners, beginning in Year 5.
- Additional state public funding of \$69.5 million would be used in Years 7-14. This would likely be bond funds from one or two future statewide bonds, or some of it could be annual general fund appropriations. The funding target reflects net proceeds available to the Program (after bond issuance or other costs are paid). Total available plus proposed state funding would be \$116.5 million over years 5-14.
- Additional federal public funding of \$95.4 million over years 6-14 of the Plan. Money could come from new budget appropriations or from existing federal programs that have authorization and funding and that contribute to the goals of the CBDA Watershed Program.

## **Periodic Review**

Periodic re-evaluation of funding targets and spending priorities will be made. Ongoing evaluation of Program performance and benefits will be reported periodically as part of the Program plan. This process is especially important for the Watershed Program because a key part of its activities is support for watershed assessments – the program and the public simply need better information about the current state of watersheds in order to identify and prioritize restoration projects and to estimate their costs. Periodic review will consider results from the Program’s own watershed assessments, plus an evaluation of Program performance and specific project performance. This information can also be used to identify and quantify benefits and to re-evaluate appropriate cost shares among the beneficiaries.

## **Unresolved Issues**

The proposed \$25 million per year funding target is a preliminary estimate. The BDPAC Watershed Subcommittee believes that amount is may not be sufficient to achieve the goals of the program. Initial years of the program’s activity have emphasized capacity building and watershed assessments. As the program transitions to a greater focus on implementation projects, the subcommittee expects the funding needs to increase. The subcommittee has agreed to develop a more detailed estimate of funding targets to be included in the November Finance Plan

Another important unresolved issue is the appropriate split between state and federal share of public funding. Broad public benefits from watershed protection and restoration justify a significant public cost share, but the split of this share between state and federal sources is not clear-cut. Program performance evaluations will help answer this question in future. For this proposal, a default allocation of equal shares to the state and federal public is adopted. Given the uncertainty of how the benefits will accrue, other allocations might also be justified. For example, given recent history of funding and the challenge of identifying federal funding, a larger portion of the public cost share could be allocated to and funded by the State, through bond issuance and/or appropriations.

**Watershed Program  
Straw Proposal - Funding Allocation**

(\$ in millions)  
October 5, 2004

Program Year	Funding Targets <sup>1</sup>	Available Funding			Total Available	Unmet Needs	Proposed Funding for Unmet Needs <sup>5</sup>				Total Funding Proposed	Remaining Gap
		State		Federal					Local			
		GF	Prop 50 <sup>2</sup>	Approps.					Local Gov't	Other Project-Specific Partners		
Years 5-9	\$125.0	\$0.5	\$46.0	\$0.0	\$46.5	\$78.5	\$16.9	\$42.2	\$4.9	\$14.6	\$78.5	\$0.0
Year 5	\$25.0	\$0.1	\$21.0		\$21.1	\$3.9			\$1.0	\$2.9	\$3.9	\$0.0
Year 6	\$25.0	\$0.1	\$10.5		\$10.6	\$14.5		\$10.6	\$1.0	\$2.9	\$14.4	\$0.0
Year 7	\$25.0	\$0.1	\$10.5		\$10.6	\$14.4		\$10.6	\$1.0	\$2.9	\$14.4	\$0.0
Year 8	\$25.0	\$0.1	\$4.0		\$4.1	\$20.9	\$6.4	\$10.6	\$1.0	\$2.9	\$20.9	\$0.0
Year 9	\$25.0	\$0.1			\$0.1	\$24.9	\$10.5	\$10.6	\$1.0	\$2.9	\$24.9	\$0.0
Years 10-14	\$125.0	\$0.5	\$0.0	\$0.0	\$0.5	\$124.5	\$52.7	\$53.2	\$4.7	\$14.0	\$124.5	\$0.0
Year 10	\$25.0	\$0.1			\$0.1	\$24.9	\$10.5	\$10.6	\$1.0	\$2.9	\$24.9	\$0.0
Year 11	\$25.0	\$0.1			\$0.1	\$24.9	\$10.5	\$10.6	\$1.0	\$2.9	\$24.9	\$0.0
Year 12	\$25.0	\$0.1			\$0.1	\$24.9	\$10.5	\$10.6	\$1.0	\$2.9	\$24.9	\$0.0
Year 13	\$25.0	\$0.1			\$0.1	\$24.9	\$10.6	\$10.7	\$0.9	\$2.7	\$24.9	\$0.0
Year 14	\$25.0	\$0.1			\$0.1	\$24.9	\$10.6	\$10.7	\$0.9	\$2.7	\$24.9	\$0.0
Total, Years 5-14	\$250.0	\$1.0	\$46.0	\$0.0	\$47.0	\$203.0	\$69.5	\$95.4	\$9.5	\$28.5	\$203.0	\$0.0

NOTES:

1. Assumes the midpoint between the low and high levels of funding as defined in the Draft Finance Options Report. Future costs (beginning with Year 6) are not adjusted for inflation.
2. \$38.25 million remaining from Prop 50 for Year 5 and beyond, plus \$7.725 million available from prior year appropriations that was not spent. Actual timing of bond approval and issuance may differ.
3. State funding for unmet needs could come from Prop 50 managed by other State agencies, new future bond funds, or some combination.
4. Federal funding could be from existing programs (such as NRCS, FWS, or Forest Service watershed activities) or new programs.
5. Assumes a combination of the two allocation examples from the Finance Options Report, Table WAT-4, page 318. Public cost shares assume equal state and federal public shares in years 6-14. Assumes 20% local (from the Water Users & Other Project-Specific Partners Emphasis allocation example) share for grant-related activities.

**Watershed Program  
Percent Allocation Beginning Year 6**

State	Federal	Local	
		Local Government	Other Project-Specific
42.4%	42.4%	3.8%	11.4%

NOTE: The public share over Years 5-14 is 47% for state and 38% for federal, because the federal share begins in Year 6.

## **Attachment Watershed Program Budget Summary and Justification**

The Watershed Program is a multifaceted set of activities designed to encourage, support and enhance the ability of local communities to manage watersheds within the Bay Delta program solution area. Improved management will contribute to the achievement of local, regional, and system wide goals, including the overarching goals of the Bay Delta Program and many of the more specific goals, objectives and targets of the component programs that make up the Bay-Delta Program.

Some basic assumptions were used to develop these 10-year funding targets:

- In the early years program effort will remain focused on capacity building, watershed assessment, planning, education and outreach activities.
- In later years effort will shift towards the implementation of specific projects, effectiveness monitoring, adaptive management, and improved science.
- The use of competitive grants as a means to pursue program objectives will decrease over time as the Program gains knowledge of watershed conditions, management capacity increases and as commissioned assessment and planning activities become available to guide management actions and projects that further the goals of the CALFED Bay-Delta Program.
- As competitive grants decrease, funding will increasingly shift toward directed actions. These directed actions will include funding support to assist with the implementation of watershed plans and locally developed watershed programs.
- Periodic performance assessments will guide the rate at which funds are moved from assessment and planning to implementation support.

The CBDA staff proposes a funding target of least \$25 million per year to address the Watershed programs needs. The following is a breakdown of average annual costs and a description of activities associated with a \$25 million per year target.

### **1. Competitive Grants (\$6.7 mill)**

To date, competitive grants have been used as a primary tool to initiate, advance and expand the capabilities of local efforts and organizations to assess current watershed conditions and potential; develop watershed scale plans and undertake specific projects. A concerted effort has been made to provide grants to a broad range of efforts throughout the solution area. A continuing need for these basic development efforts exists within the solution area and this need is best met using a competitive grant program. Over the next ten-years, the program anticipates that substantial capacity to manage watersheds will emerge from this investment. As management capacity emerges, emphasis on open competitive grants will decrease.

## **2. Directed Actions (\$11.9 mill)**

As emphasis on the use of competitive grants as a program implementation tool decreases, the implementation of “directed actions” will increase. Directed actions will be specific local programs, projects, or actions designed to achieve specific natural resource objectives identified by the Bay Delta Program. It is anticipated that these specific programs and projects will emerge from the development activities pursued during the early years of program implementation, and guided by performance results of the Watershed program. Actions may be targeted by topic and/or geography, and will support the balanced implementation of the CALFED Bay-Delta Program.

## **3. Technical Assistance (\$3.1 mill)**

Technical assistance- the availability of specific expertise to assist local communities to assess, plan, manage, monitor and evaluate watershed management efforts is a vital component of the Watershed Program. A modest level of assistance, primarily through State agencies, has been made available by the program to date. During the next ten-years, the program will target funding to expand and enhance the level of technical assistance available from state and federal agencies, or other sources such as Universities or private sources. The types of assistance available will be determined by periodic needs analysis.

## **4. Partnership Seminars and Local Watershed Coordinators (\$1.7)**

These two tools have been used effectively to expand the level of expertise and knowledge available to promote, support and conduct local watershed management activities. The program will continue to conduct these important activities throughout the next ten-year period. Funding emphasis on Watershed Coordinators declines over this time as local capacity (and funding support) emerges and implementation of management activities at the local level increase.

## **5. Program Performance Evaluation (\$100,000)**

Program performance will be evaluated in detail every three years. Evaluation will include detailed assessment of program outputs and outcomes as described in the Watershed Program performance plan. These periodic evaluations will be used to inform the program on progress, and to guide the direction and emphasis of future program actions.

## **6. Science Support (\$200,000)**

The program is committed to the advancement of science to better inform and evaluate watershed management efforts supported by the program. The Program will establish a science advisory panel in Year 5 and use the panel to guide investigations into ecological functions economic descriptions and modeling of those functions, and to guide an analysis of the ecological results of management on the function and values of the watershed in the Bay Delta system.

## **7. Program Administration (\$1.3 mill)**



## Funding Targets for the Watershed Program

(\$ in millions)

October 5, 2005

Program Componentets	Average Annual	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	10-Year Total
Competitive Grants	\$6.7	\$10.0	\$10.0	\$10.0	\$8.0	\$7.8	\$5.0	\$5.0	\$5.0	\$3.0	\$3.0	\$66.8
Directed Actions	\$11.9	\$7.8	\$7.8	\$8.2	\$10.5	\$11.2	\$13.5	\$14.0	\$14.0	\$16.0	\$16.0	\$119.0
Technical Assistance	\$3.1	\$2.7	\$2.7	\$2.7	\$2.7	\$2.7	\$2.9	\$3.2	\$3.2	\$4.2	\$4.2	\$31.2
Partnership Seminars	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$3.0
Local Coordinator Support	\$1.4	\$2.7	\$2.7	\$2.0	\$2.0	\$1.5	\$1.5	\$1.0	\$1.0	\$0.0	\$0.0	\$14.4
Program Performance Evaluation	\$0.1	\$0.0	\$0.0	\$0.3	\$0.0	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.5	\$1.1
Science Support	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$2.0
Program Adminstration	\$1.3	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	12.5
<b>Total</b>	<b>\$25.0</b>	<b>\$25.0</b>	<b>\$25.0</b>	<b>\$25.0</b>	<b>\$25.0</b>	<b>\$25.0</b>	<b>\$25.0</b>	<b>\$25.0</b>	<b>\$25.0</b>	<b>\$25.0</b>	<b>\$25.5</b>	<b>\$250.0</b>

**Notes:**

This scenario is based on the following assumptions

1. Competitive grants will decrease over time as the Program gains knowledge of watershed conditions
2. Directed actions will increas over time as a picture of local parts of the Bay-Delta system conditions emerge and coalesce
3. Funds will be targeted for capacity building, assessment, planning, education and outreach in the early years
4. Funds will shift to plan implementation projects, effectiveness monitoring, adaptive management and improved science in later years
5. Periodic performance assessments will guide the rate at which funds are moved from assessment and planning to implementation support
6. Does not include adjustments for inflation

# Drinking Water Quality

## **Background and Funding History**

The Water Quality Program consists of the Drinking Water Quality Program and the Environmental Water Quality Program. The Environmental Water Quality Program is included as an element of the Environmental Restoration Program Straw Proposal and thus its detailed information is located in that section. The remainder of this text is focused on the Drinking Water Quality Program, but does contain ties to the overall Water Quality Program.

The Drinking Water Quality Program (DWQP) goal is to provide good water quality for the millions of Californians who rely on the Delta for all or part of their drinking water. One specific target is an “equivalent level of public health protection” (or ELPH) to the CALFED Record of Decision numeric targets for disinfection by-product precursors in the Delta. These goals recognize that there exist opportunities to improve water quality between source and tap, and has resulted in the program implementation strategy of developing regional water quality management plans (regional plans) to assist in identifying and prioritizing water quality improvement opportunities. Regional plans, which are the highest short-term priority for the program, will shape the program and its long-term funding needs. This 10-Year Finance Plan is therefore more accurate for the short-term, and will require revisiting as regional plans develop.

As noted in several of the finance meetings and BDPAC subcommittee meetings, there are activities and projects in other program elements (specifically ERP and Conveyance) that have significant water quality benefits. It has been suggested that it may result in a more effective water quality program if these projects were managed as part of the DWQP – and as a result the DWQP would be focused on all actions with the potential to improve water quality. Two of these projects, Franks Tract and Old River/Rock Slough Drainage Management, have been moved into this Finance Plan.

During the program’s initial four years of activity, funding for the DWQP (not including Franks Tract and Old River /Rock Slough projects) has averaged about \$23 million per year (ranging from a low of \$10 million to a high of \$40 million). However, funding has been limited to a subset of the DWQ activities due to funding constraints under the bond funds, leaving large parts of the program with little or no funding. For example, approximately 53% of the funding for the DWQP was for non-point source control projects managed by the SWRCB, and approximately 21% (\$20 million) was for San Joaquin Valley/Southern California Water Exchange. Roughly 91% of the funding has been provided by State funds (bonds and General Funds), with the remainder provided by grant matching through local, federal, and water user sources. This amount does not include the costs of drinking water quality activities carried out by other public and private organizations, independent of the CALFED Bay-Delta Program.

Franks Tract studies have received a small amount of funding (\$1.8 million) from Ecosystem Restoration Program funds in Proposition 13, to study potential fishery benefits. This resulted in the discovery of potential significant water quality benefits. Old River/Rock Slough Water Quality Improvement Projects (including Phase I of the Contra Costa Canal Encasement Project) have been funded primarily through state bond, USEPA, and SWP funding.

### **Proposed 10-Year Finance Plan**

The DWQP proposes a funding target of \$570 million for 2005-2014. This 10-year cost estimate is built upon the activities identified in the Year 5-8 Multiyear Program Plan for the DWQP. The DWQP expects that these cost estimates could significantly change once the regional water quality management plans are completed and able to inform the program. It is also possible that some of the funding awarded under Proposition 50 Chapters 4, 5 and 8 could provide the state share of funding in Years 5 and 6 for some DWQP activities, commensurate with the funding of specific projects that meet DWQP objectives. The specific amounts will not be known until funding is awarded, in late Year 5 and early Year 6.

The funding target is broken down by component:

- Regional ELPH planning (\$12.6 million)
- Source improvement (\$500 million: \$295 million for directed actions, \$164 million for augmenting non-point source programs, and \$40.7 million for Conveyance projects that yield source improvement)
- Treatment (\$34.4 million)
- Science, monitoring, & assessment (\$15.7 million)
- Program management & oversight (\$7 million)

The DWQP is considering construction of other projects but at this point it is premature to develop cost allocations until more information on costs and benefits is available. For these Potential Capital Projects, a future timeframe and check in point, and a process for developing cost allocations when it is timely, will be included in the 10 year finance plan. These potential capital projects include: construction of the North Bay Aqueduct Alternative Intake, future phases of Franks Tract modifications, the Old River/Rock Slough Canal Encasement Phase II, relocation of the CCWD Old River Intake, and Treatment Technology Implementation. The estimates above do not include the funding for the Potential Capital Projects (approximately \$320 million).

## **Regional ELPH Planning**

### *Funding targets*

The Drinking Water Subcommittee (DWS) has recently made the completion of regional ELPH plans their top priority for the DWQP. The DWQP is currently funding three pilot regional planning efforts, and has funded the Bay Area Water Quality/Water Supply Reliability Project.

The funding target for Regional ELPH planning is \$12.6 million. This estimate is based on the Drinking Water Subcommittee's recommendation of \$2 million per plan, for five regions, and the cost of coordinating these efforts. Because of the priority to complete these plans soon in order to influence future priorities, the \$12.6 million is proposed to be scheduled in the first 3 years (Years 5 - 7). The DWS supports this estimate and schedule.

### *Proposed Allocations*

The proposed funding allocation for this component is 50% public (state/federal) funding and 50% local cost share. A public cost share is considered necessary to ensure the regional plans are comprehensive in their approach and consider a range of inter-regional water quality issues. Sole reliance on local funding would not provide individual regions incentive to address water quality issues beyond their immediate regional interest.

At this time it is likely although not certain that the public share can be provided from existing state bond funds through Proposition 50 Chapter 8 (Integrated Regional Water Management Planning). The first round of decision for Proposition 50 Chapter 8 grants is expected to be made in July 2005. If the necessary public share (\$6.6 million ) is not provided from Prop 50 funding for this activity, the options are to request General Fund dollars or federal dollars, wait until Year 8 when the next State bond funding may be available, or fully fund the regional plans at the local water agency level. The attached Water Quality table allocates all costs to the local entities as a fallback approach assuming no public funding is provided in the near-term.

## **Source Improvement - San Joaquin River Water Quality Management (SJRWOM)**

Specific water quality actions were identified in the Delta Improvements Package Implementation Plan (DIP), a high priority for the CALFED program and for the DWS. The DIP water quality actions included in this 10-year finance plan are from the Implementation of the San Joaquin River Water Quality Management Plan, and are a combination of flow-related tools and load reduction tools. Specifically, the activities break down into three major categories (not including Franks Tract modifications, which are discussed in Source Improvement - Directed Actions - Franks Tract and Old River/Rock Slough).

## **Recirculation (Flow-Related Action)**

### *Funding Targets*

The recirculation of San Joaquin River water through the Tracy Pumping Plant/Delta-Mendota Canal (DMC)/Newman Wasteway has the potential to improve water quality in the San Joaquin River and the Delta, and to contribute to achieving the Vernalis water quality objectives (the objectives of the Lower San Joaquin River Salt and Boron TMDL). There are no capital costs associated with this project, only \$3 million in annual operating and maintenance costs (\$30/AF).

### *Proposed allocations*

This project assists Reclamation and CVP water users in meeting regulatory requirements, so the costs are allocated entirely to the CVP water users share, who are generally responsible for reimbursing operations and maintenance costs of the CVP.

## **Lower DMC Load Reduction and Management (Load-Related Action)**

### *Funding Targets*

The Exchange Contractors are developing a system of groundwater pumping, salinity concentration, and salinity treatment (reverse osmosis), and have received some public funding for this activity. They estimate a capital cost of \$30 million and annual operation and maintenance (O&M) cost of \$3.5 million.

### *Proposed allocations*

The costs are allocated entirely to the CVP water users, because the Exchange Contractors are CVP water users. They anticipate funding the effort through marketing of the treated water, so the funding would not be through the traditional CVP reimbursement model.

## **Upper and Middle DMC Load Reduction and Management (Load-Related Action)**

### *Funding Targets*

There are three activities in this category: Upper Delta Mendota Canal (DMC) Load Reduction, Middle DMC (Grassland Area) Load Reduction, and Wildlife Refuge Management. The Upper DMC Load Reductions activities are presumed similar to the Lower DMC activities, but are still being defined. The cost estimates for Upper DMC Load Reductions (\$30 million capital and \$3 million O&M) are being refined. The Middle DMC activities are based on the experience in the Grasslands area in reducing selenium and salinity loads in Mud Slough and the San Joaquin River, and include physical treatment. The cost estimate for the Middle DMC Activities is \$101 million

capital and \$3.2 million O&M. Refuge Water Management includes construction of retention facilities and related infrastructure. The cost estimate for Refuge Water Management (\$25 million capital and \$200,000 O&M) is still being refined.

#### *Proposed allocations*

While these activities are primarily designed to meet current regulatory requirements, they are also an important component in implementing the Delta Improvements Package to protect and achieve multiple benefits, either through their direct implementation as proposed or through expanding the activities for larger benefits. They are also activities which will assist Reclamation in addressing its legal responsibilities per the San Luis Unit drainage issue. Based on this, the proposed allocation is 50% federal and 50% CVP water users, recognizing that Reclamation will use its allocation process to assess the actual split between public share and contractor repayment, but recognizing that there will be an allocation between the two.

Possible state funding sources may be available for this component, through existing non-point source improvement, treatment and desalination implementation, and integrated water management state bond funding in Proposition 50 Chapters 4, 5, 6, 7 or 8. State funding may be justified if needed to accelerate activities in this category, although no allocation of state funding is proposed. Specific projects may receive state funding by qualifying under the existing grant criteria, regardless of the allocations specified in this finance plan.

### **Source Improvement - Directed Actions - California Aqueduct Watershed Actions**

#### *Funding Targets*

There are other source improvement directed actions included in the CALFED Record of Decision – improvements to the water quality within the California Aqueduct and other conveyances, and regional water quality exchange programs. The DWS has recommended no additional funding for these actions pending: a) a feasibility study on water quality improvement in the California Aqueduct – estimated at \$2 million in Years 5 and 6, and b) the conclusion of feasibility studies and demonstration projects under the currently funded Southern California-San Joaquin Regional Water Quality Exchange Project. The DWS supports this estimate and schedule.

#### *Proposed allocations*

The proposed allocation is 100% State Water Project water users, since they are the primary beneficiary of the study which would identify and prioritize potential water quality improvement projects.

## **Source Improvement - Directed Actions - Franks Tract and Old River/Rock Slough**

The DWS requested that two projects (Franks Tract and Old River & Rock Slough Water Quality Improvement) be moved from the Conveyance Program to the DWQP finance section, based on the purposes of the projects and the perceived benefit to water quality.

### *Funding Target*

The current estimate to complete Franks Tract is \$92 million, but the DWS recommends pursuing a phased approach, beginning with the feasibility study and Phase I. The feasibility study, which includes environmental compliance, preliminary design and initial scientific studies, is estimated to cost \$13.4 million and finish in Year 6. The feasibility study is currently funded with \$1.8 million from Proposition 13 and with \$2.5 million from the SWP water users, leaving an unmet need of \$9.2 million. Phase I, which includes design and construction of small levee repairs to reduce salt accumulation in the Delta, is estimated to cost \$17 million and finish in Year 8. Additional phases of this project are addressed in the Potential Capital Projects section.

The Old River/Rock Slough Water Quality Improvement Projects are estimated to complete construction by December 2005, and have received \$450,000 from the USEPA, \$4.1 million in Proposition 13 funds and \$710,000 from SWP users. The Contra Costa Canal Encasement Phase I project has received \$7.3 million from Proposition 13 and \$200,000 from the USBR, and is not anticipated to require additional funding

### *Proposed allocations*

For the Franks Tract feasibility study, the proposed allocation is 100% state & federal, because public funding is appropriate for funding feasibility studies where the specific beneficiaries have not been identified. The proposed allocation for Phase 1, based on the beneficiaries of the project if it is operated for water quality improvements is 25% state/federal, 25% CVP water users, and 50% SWP water users. The primary benefits expected from this project are improved export water quality for SWP and CVP M&I water users and for regulatory relief and improved export water quality for SWP and CVP agricultural water users. However, realization of water quality benefits will depend on either operation agreements or changes to the Water Quality Control Plan. The Franks Tract project is considered a critical element of the Drinking Water Quality Program. Other significant benefits that may result from this project include ecosystem and water supply benefits. The benefits of this project, and the overall allocation of costs, will have to be reevaluated between project phases.

This project is included in the federal authorization bill<sup>2</sup> and may be eligible for other Prop 50 bond funds; such as Chap 7 (b), but a decision on the use of those bonds funds needs further review because of competing demands from the conveyance, water quality, and ecosystem programs.

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<sup>2</sup> SA3663, Title 1, Section 103 (f)(1)(C): "Funds may be expended for feasibility studies and actions at Franks Tract to improve water quality in the Delta."

## Source Improvement - Nonpoint Source Improvement Grants

### *Funding targets*

Source improvement also includes augmenting existing programs addressing non-point source water quality impairment to address constituents of particular concern to drinking water, a concept supported by the CALFED ROD (which contains several milestones related to coordinated BMP implementation). While regional plans are being developed to determine the relative importance of such actions, the DWS has recommended limiting funding in the first 3 years to \$3 million per year, and reevaluating the target to determine the appropriate level of funding in this category. Currently, the targets in Years 8-14 reflect historic funding levels (\$20 million/year, which includes the local cost match)<sup>3</sup>.

### *Proposed allocations*

In the past, public funds have partially funded DWQP Nonpoint source improvement projects with a range of 20% - 50% local cost share. The proposed allocation is 25% state, 25% federal and 50% local, as a program average target. Public funding is appropriate because the type of nonpoint source improvement projects the DWQP supports are generally not locally cost-effective and support state and federal clean water goals. Local and public contributions would vary on a project by project basis in order to follow a benefits-based approach. While there is general support for a public contribution, the public funding is most appropriate:

- Where projects are not locally cost-effective yet provide broad public benefits, public funding should be commensurate with the degree of public benefits (for example, research and pilot studies or feasibility studies where benefits are unknown),
- Where projects are locally cost-effective, but require public funding to overcome significant financial or institutional barriers or affect a systemic behavioral change, or
- Where public funding will result in project modifications yielding broad public benefits.
- Where public funds can be used to address Environmental Justice and other social equity issues.

Possible state funding sources that may provide a public share include Proposition 50 Chapters 5 Agricultural Water Quality Grant Program, with the first funding decisions expected in Year 5, Chapter 4 Source Improvement Grants, and Chapter 8 Integrated Regional Water Management Projects, both with funding decisions expected in early Year 6. Possible federal funding sources include the Clean Water Act Section 319 Nonpoint Source Grants (USEPA) and Environmental Quality Incentives Program grants

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<sup>3</sup> The previous draft of this document contained a target of \$10 million/year, which reflected the historic public share amount, not the additional local cost contribution. This is being corrected in this draft.



(NRCS). None of these funding sources are dedicated to the DWQP and are therefore not included in the proposed allocation.

## **Treatment Technology Demonstration**

### *Funding Target*

The DWQP and its implementing agencies have invested \$2 million in public funding for four treatment technology demonstration projects, three of which have concluded or are in the process of concluding. A S.F. Bay Area project has recently begun, and has only received public funding for Phase 1 of a two-phase demonstration project. The DWS and implementing agencies support the use of a science panel to determine the future direction of this activity. Should the activity continue, the DWS has recommended a rolling grant program in the area of treatment technology demonstration, focusing on projects which have a high degree of transferability (i.e. the resulting information can be used by a large number of utilities) and on contaminants of the most concern to the program. This finance plan does not envision funding full-scale implementation of treatment technology, which is left to the existing state and federal programs. The cost estimate of a rolling grant program is \$3.4 million/year.

### *Proposed allocations*

The DWS generally indicated support for funding to be shared between state, federal and local sources. In the past, treatment demonstration projects have been publicly funded with an approximate 40% local cost share. The proposed cost allocation is 25% state, 25% federal, and 50% local, because of the public benefit of research studies with wide applicability.

Possible state funding sources that may be available for the public share may include Proposition 50 Chapters 4 and 6, with the first funding decisions expected in Year 5.

## **Science, Monitoring and Assessment**

### *Funding Target*

The DWQP needs to incorporate science, monitoring, and assessment activities over the next ten years. The DWQP has invested \$17 million in research studies, with an average 30% local cost match, through grant funding. The DWQP has not been able to directly fund a science, monitoring and assessment program, such as proposed for the next ten years. The funding target is \$15.7 million over 10 years.

### *Proposed Allocations*

The proposed allocation is 50% state, 50% federal, because the benefits are broad and diffuse—and this is consistent with the proposed allocation in the science program

### **Program Management & Oversight**

#### *Funding target*

Cost estimates in this category are generally for staff time to complete the above-mentioned tasks, in both the CBDA and the implementing agencies. The funding target is \$700,000 per year for program management and oversight activities.

#### *Proposed allocations*

This activity is appropriately supported with public funds—following a 50-50 cost share between state and federal sources consistent with the proposed allocation in the other programs. This allocation is currently being refined, as the available funding numbers only reflect CBDA funding and not that of implementing agencies currently participating in program management activities. This information will be updated in the November Finance Plan.

### **Unresolved Issues**

- There is no dedicated funding for the DWQP from Proposition 50 or the Federal CWA Section 319 funds, so no estimates of potential contributions from these funds can be made in the available funding. The DWQP will know the contributions from these sources only after funding is awarded, but do expect some level of support.
- There is a large potential DWQP funding gap in categories which rely on public funding (new state bonds after Year 8 and federal funding in general). The success of the DWQP will depend on its being able to fund critical activities. Regional plan development in Years 6 and 7 may also change the emphasis and magnitude of public funding needs.
- The SJWQMG activities are included in the DWQP finance plan because of the inclusion of it in the Delta Improvements Package. However, San Joaquin River issues are strongly tied to Reclamation's responsibilities to the San Luis Unit of the CVP to provide drainage, and to the Central Valley Regional Water Quality Control Board's regulatory responsibility to address pollutants under the Clean Water Action section 303(d).

### **Potential Capital Projects**

There are a small number of capital projects which are currently associated with the Drinking Water Quality Program. The program assumes their financing will be negotiated on a project-by-project basis, and be largely funded by the beneficiaries of the projects.

1. North Bay Aqueduct Intake Relocation: The feasibility study estimates a cost of up to \$175 million with the project beginning in 2010. The North Bay Aqueduct currently experiences problems with total organic carbon and turbidity, largely due to the location of its intake.
2. Franks Tract Modifications, Phases II+: Following completion of Phase I, this project will be reevaluated as to the need for additional phases. The State Water Contractors have indicated that at a minimum, \$10 million for gate construction may be required. Other anticipated work is estimated to cost \$46 million.
3. Old River Intake Relocation: This project is an alternative in the Delta Improvements Package. Should the DIP water quality projects fail to provide acceptable continuous improvements in water quality, this project would improve water quality for CCWD. It is estimated to cost \$62.8 million.
4. Contra Costa Canal Encasement Project, Phase II: This project would encase a portion of the currently earthen-lined Contra Costa Canal in the vicinity of both local development and the proposed Dutch Slough Tidal Marsh Restoration Project. Costs associated with this project may be more appropriate in the Ecosystem Program as mitigation of drinking water quality impacts.

**Water Quality Program**  
**Straw Proposal - Funding Allocation**  
(\$ in millions)  
October 5, 2004

Program Year	Funding Targets <sup>1</sup>	Available Funding						Total Available	Unmet Needs	Proposed Funding for Unmet Needs					Total Funding Proposed	Remaining Gap
		State			Federal						Water Users					
		GF	Prop 13	Prop 50	Approps.						SWP	Local	State	Federal		
Regional ELPH Planning	\$12.6	\$0.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.9	\$11.8	\$0.0	\$0.0	\$11.8	\$0.0	\$0.0	\$11.8	\$0.0
Year 5	\$1.1	\$0.9						\$0.9	\$0.2			\$0.2			\$0.2	\$0.0
Year 6	\$6.3							\$0.0	\$6.3			\$6.3			\$6.3	\$0.0
Year 7	\$5.3							\$0.0	\$5.3			\$5.3			\$5.3	\$0.0
Year 8	\$0.0							\$0.0	\$0.0						\$0.0	\$0.0
Year 9	\$0.0							\$0.0	\$0.0						\$0.0	\$0.0
Year 10	\$0.0							\$0.0	\$0.0						\$0.0	\$0.0
Year 11	\$0.0							\$0.0	\$0.0						\$0.0	\$0.0
Year 12	\$0.0							\$0.0	\$0.0						\$0.0	\$0.0
Year 13	\$0.0							\$0.0	\$0.0						\$0.0	\$0.0
Year 14	\$0.0							\$0.0	\$0.0						\$0.0	\$0.0
Source Improvement - SJRWQMP - Recirculation	\$30.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$30.0	\$0.0	\$0.0	\$0.0	\$0.0	\$30.0	\$30.0	\$0.0
Year 5	\$3.0							\$0.0	\$3.0					\$3.0	\$3.0	\$0.0
Year 6	\$3.0							\$0.0	\$3.0					\$3.0	\$3.0	\$0.0
Year 7	\$3.0							\$0.0	\$3.0					\$3.0	\$3.0	\$0.0
Year 8	\$3.0							\$0.0	\$3.0					\$3.0	\$3.0	\$0.0
Year 9	\$3.0							\$0.0	\$3.0					\$3.0	\$3.0	\$0.0
Year 10	\$3.0							\$0.0	\$3.0					\$3.0	\$3.0	\$0.0
Year 11	\$3.0							\$0.0	\$3.0					\$3.0	\$3.0	\$0.0
Year 12	\$3.0							\$0.0	\$3.0					\$3.0	\$3.0	\$0.0
Year 13	\$3.0							\$0.0	\$3.0					\$3.0	\$3.0	\$0.0
Year 14	\$3.0							\$0.0	\$3.0					\$3.0	\$3.0	\$0.0

**Water Quality Program  
Straw Proposal - Funding Allocation**  
(\$ in millions)  
October 5, 2004

Program Year	Funding Targets <sup>1</sup>	Available Funding						Total Available	Unmet Needs	Proposed Funding for Unmet Needs					Total Funding Proposed	Remaining Gap
		State			Federal								Water Users			
		GF	Prop 13	Prop 50	Approps.								SWP			
Source Improvement - SJRWQMP - Lower DMC Load Reduction and Management	\$58.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$58.0	\$0.0	\$0.0	\$0.0	\$0.0	\$58.0	\$58.0	\$0.0
Year 5	\$5.0							\$0.0	\$5.0					\$5.0	\$5.0	\$0.0
Year 6	\$10.0							\$0.0	\$10.0					\$10.0	\$10.0	\$0.0
Year 7	\$18.5							\$0.0	\$18.5					\$18.5	\$18.5	\$0.0
Year 8	\$3.5							\$0.0	\$3.5					\$3.5	\$3.5	\$0.0
Year 9	\$3.5							\$0.0	\$3.5					\$3.5	\$3.5	\$0.0
Year 10	\$3.5							\$0.0	\$3.5					\$3.5	\$3.5	\$0.0
Year 11	\$3.5							\$0.0	\$3.5					\$3.5	\$3.5	\$0.0
Year 12	\$3.5							\$0.0	\$3.5					\$3.5	\$3.5	\$0.0
Year 13	\$3.5							\$0.0	\$3.5					\$3.5	\$3.5	\$0.0
Year 14	\$3.5							\$0.0	\$3.5					\$3.5	\$3.5	\$0.0
Source Improvement - SJRWQMP - Upper and Middle DMC Load Reduction and Management	\$205.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$205.0	\$0.0	\$92.3	\$0.0	\$0.0	\$92.3	\$184.5	\$20.5
Year 5	\$20.5							\$0.0	\$20.5						\$0.0	\$20.5
Year 6	\$20.5							\$0.0	\$20.5		\$10.3			\$10.25	\$20.5	\$0.0
Year 7	\$20.5							\$0.0	\$20.5		\$10.3			\$10.25	\$20.5	\$0.0
Year 8	\$20.5							\$0.0	\$20.5		\$10.3			\$10.25	\$20.5	\$0.0
Year 9	\$20.5							\$0.0	\$20.5		\$10.3			\$10.25	\$20.5	\$0.0
Year 10	\$20.5							\$0.0	\$20.5		\$10.3			\$10.25	\$20.5	\$0.0
Year 11	\$20.5							\$0.0	\$20.5		\$10.3			\$10.25	\$20.5	\$0.0
Year 12	\$20.5							\$0.0	\$20.5		\$10.3			\$10.25	\$20.5	\$0.0
Year 13	\$20.5							\$0.0	\$20.5		\$10.3			\$10.25	\$20.5	\$0.0
Year 14	\$20.5							\$0.0	\$20.5		\$10.3			\$10.25	\$20.5	\$0.0

**Water Quality Program  
Straw Proposal - Funding Allocation**

(\$ in millions)  
October 5, 2004

Program Year	Funding Targets <sup>1</sup>	Available Funding						Total Available	Unmet Needs	Proposed Funding for Unmet Needs					Total Funding Proposed	Remaining Gap
		State			Federal								Water Users			
		GF	Prop 13	Prop 50	Approps.								SWP	CVP		
Source Improvement - Directed Actions - California Aqueduct Watershed Actions	\$2.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2.0	\$0.0	\$0.0	\$0.0	\$2.0	\$0.0	\$2.0	\$0.0
Year 5	\$1.0							\$0.0	\$1.0				\$1.0		\$1.0	\$0.0
Year 6	\$1.0							\$0.0	\$1.0				\$1.0		\$1.0	\$0.0
Source Improvement - Conveyance (Franks Tract, OR/RS) <sup>1</sup>	\$40.7	\$0.0	\$11.9	\$0.0	\$0.2	\$2.5	\$0.0	\$14.6	\$26.1	\$2.2	\$6.8	\$0.0	\$8.5	\$4.3	\$21.8	\$4.3
Year 5	\$14.6		\$11.9		\$0.2	\$2.5		\$14.6	\$0.0						\$0.0	\$0.0
Year 6	\$9.1							\$0.0	\$9.1		\$4.7				\$4.7	\$4.4
Year 7	\$11.7							\$0.0	\$11.7		\$1.5		\$5.9	\$2.9	\$10.2	\$1.5
Year 8	\$5.3							\$0.0	\$5.3	\$2.2	\$0.7		\$2.7	\$1.3	\$6.8	-\$1.5
Year 9	\$0.0							\$0.0	\$0.0						\$0.0	\$0.0
Year 10	\$0.0							\$0.0	\$0.0						\$0.0	\$0.0
Year 11	\$0.0							\$0.0	\$0.0						\$0.0	\$0.0
Year 12	\$0.0							\$0.0	\$0.0						\$0.0	\$0.0
Year 13	\$0.0							\$0.0	\$0.0						\$0.0	\$0.0
Year 14	\$0.0							\$0.0	\$0.0						\$0.0	\$0.0

**Water Quality Program**  
**Straw Proposal - Funding Allocation**  
(\$ in millions)  
October 5, 2004

Program Year	Funding Targets <sup>1</sup>	Available Funding						Total Available	Unmet Needs	Proposed Funding for Unmet Needs					Total Funding Proposed	Remaining Gap
		State			Federal								Water Users			
		GF	Prop 13	Prop 50	Approps.								SWP			
Source Improvement - Nonpoint Source Improvement Grants	\$164.0	\$0.0	\$5.2	\$0.0	\$0.0	\$0.0	\$0.0	\$5.2	\$158.8	\$36.1	\$36.1	\$72.1	\$0.0	\$0.0	\$144.2	\$14.6
Year 5	\$6.6		\$1.8					\$1.8	\$4.8						\$0.0	\$4.8
Year 6	\$6.6		\$3.4					\$3.4	\$3.2						\$0.0	\$3.2
Year 7	\$6.6							\$0.0	\$6.6						\$0.0	\$6.6
Year 8	\$20.6							\$0.0	\$20.6	\$5.2	\$5.2	\$10.3			\$20.6	\$0.0
Year 9	\$20.6							\$0.0	\$20.6	\$5.2	\$5.2	\$10.3			\$20.6	\$0.0
Year 10	\$20.6							\$0.0	\$20.6	\$5.2	\$5.2	\$10.3			\$20.6	\$0.0
Year 11	\$20.6							\$0.0	\$20.6	\$5.2	\$5.2	\$10.3			\$20.6	\$0.0
Year 12	\$20.6							\$0.0	\$20.6	\$5.2	\$5.2	\$10.3			\$20.6	\$0.0
Year 13	\$20.6							\$0.0	\$20.6	\$5.2	\$5.2	\$10.3			\$20.6	\$0.0
Year 14	\$20.6							\$0.0	\$20.6	\$5.2	\$5.2	\$10.3			\$20.6	\$0.0
Treatment Technology Demonstration	\$34.4	\$0.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.8	\$33.6	\$5.5	\$7.7	\$13.8	\$0.0	\$0.0	\$27.0	\$6.6
Year 5	\$3.4	\$0.1						\$0.1	\$3.4						\$0.0	\$3.4
Year 6	\$3.4	\$0.1						\$0.1	\$3.4		\$0.9	\$0.9			\$1.7	\$1.6
Year 7	\$3.4	\$0.1						\$0.1	\$3.4		\$0.9	\$0.9			\$1.7	\$1.6
Year 8	\$3.4	\$0.1						\$0.1	\$3.4	\$0.8	\$0.9	\$1.7			\$3.4	\$0.0
Year 9	\$3.4	\$0.1						\$0.1	\$3.4	\$0.8	\$0.9	\$1.7			\$3.4	\$0.0
Year 10	\$3.4	\$0.1						\$0.1	\$3.4	\$0.8	\$0.9	\$1.7			\$3.4	\$0.0
Year 11	\$3.4	\$0.1						\$0.1	\$3.4	\$0.8	\$0.9	\$1.7			\$3.4	\$0.0
Year 12	\$3.4	\$0.1						\$0.1	\$3.4	\$0.8	\$0.9	\$1.7			\$3.4	\$0.0
Year 13	\$3.4	\$0.1						\$0.1	\$3.4	\$0.8	\$0.9	\$1.7			\$3.4	\$0.0
Year 14	\$3.4	\$0.1						\$0.1	\$3.4	\$0.8	\$0.9	\$1.7			\$3.4	\$0.0

**Water Quality Program**  
**Straw Proposal - Funding Allocation**  
(\$ in millions)  
October 5, 2004

Program Year	Funding Targets <sup>1</sup>	Available Funding						Total Available	Unmet Needs	Proposed Funding for Unmet Needs					Total Funding Proposed	Remaining Gap
		State			Federal						Water Users					
		GF	Prop 13	Prop 50	Approps.						SWP	CVP				
Science, Monitoring and Assessment	\$15.7	\$2.0	\$0.0	\$1.0	\$0.3	\$0.0	\$0.1	\$3.4	\$12.4	\$4.8	\$6.8	\$0.0	\$0.0	\$0.0	\$11.6	\$0.7
Year 5	\$1.7	\$0.5		\$0.3	\$0.1		\$0.0	\$1.0	\$0.7						\$0.0	\$0.7
Year 6	\$1.6	\$0.2		\$0.3	\$0.1		\$0.0	\$0.6	\$1.0		\$0.7				\$0.7	\$0.3
Year 7	\$1.9	\$0.2		\$0.3	\$0.1		\$0.0	\$0.6	\$1.3		\$0.8				\$0.8	\$0.4
Year 8	\$1.7	\$0.2						\$0.2	\$1.5	\$1.0	\$0.9				\$1.8	-\$0.3
Year 9	\$1.7	\$0.2						\$0.2	\$1.5	\$1.1	\$0.9				\$2.0	-\$0.4
Year 10	\$1.4	\$0.2						\$0.2	\$1.3	\$0.6	\$0.7				\$1.3	\$0.0
Year 11	\$1.4	\$0.2						\$0.2	\$1.3	\$0.6	\$0.7				\$1.3	\$0.0
Year 12	\$1.4	\$0.2						\$0.2	\$1.3	\$0.6	\$0.7				\$1.3	\$0.0
Year 13	\$1.4	\$0.2						\$0.2	\$1.3	\$0.6	\$0.7				\$1.3	\$0.0
Year 14	\$1.4	\$0.2						\$0.2	\$1.3	\$0.6	\$0.7				\$1.3	\$0.0



**Water Quality Program**  
**Straw Proposal - Funding Allocation**  
(\$ in millions)  
October 5, 2004

Program Year	Funding Targets <sup>1</sup>	Available Funding						Total Available	Unmet Needs	Proposed Funding for Unmet Needs					Total Funding Proposed	Remaining Gap
		State			Federal								Water Users			
		GF	Prop 13	Prop 50	Approps.								SWP			
Program Management & Oversight	\$7.0	\$1.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.5	\$5.5	\$1.4	\$3.5	\$0.0	\$0.0	\$0.0	\$4.9	\$0.6
Year 5	\$0.7	\$0.2						\$0.2	\$0.6		\$0.4				\$0.4	\$0.2
Year 6	\$0.7	\$0.2						\$0.2	\$0.6		\$0.4				\$0.4	\$0.2
Year 7	\$0.7	\$0.2						\$0.2	\$0.6		\$0.4				\$0.4	\$0.2
Year 8	\$0.7	\$0.2						\$0.2	\$0.6	\$0.2	\$0.4				\$0.6	\$0.0
Year 9	\$0.7	\$0.2						\$0.2	\$0.6	\$0.2	\$0.4				\$0.6	\$0.0
Year 10	\$0.7	\$0.2						\$0.2	\$0.6	\$0.2	\$0.4				\$0.6	\$0.0
Year 11	\$0.7	\$0.2						\$0.2	\$0.6	\$0.2	\$0.4				\$0.6	\$0.0
Year 12	\$0.7	\$0.2						\$0.2	\$0.6	\$0.2	\$0.4				\$0.6	\$0.0
Year 13	\$0.7	\$0.2						\$0.2	\$0.6	\$0.2	\$0.4				\$0.6	\$0.0
Year 14	\$0.7	\$0.2						\$0.2	\$0.6	\$0.2	\$0.4				\$0.6	\$0.0
Years 5-9	\$303.6	\$3.2	\$17.1	\$1.0	\$0.5	\$2.5	\$0.1	\$24.3	\$279.3	\$16.6	\$66.6	\$37.5	\$10.5	\$100.8	\$231.9	\$47.4
Year 5	\$57.6	\$1.6	\$13.7	\$0.3	\$0.3	\$2.5	\$0.0	\$18.5	\$39.1	\$0.0	\$0.4	\$0.2	\$1.0	\$8.0	\$9.6	\$29.6
Year 6	\$62.3	\$0.4	\$3.4	\$0.3	\$0.1	\$0.0	\$0.0	\$4.3	\$58.0	\$0.0	\$16.9	\$7.2	\$1.0	\$23.3	\$48.3	\$9.7
Year 7	\$71.6	\$0.4	\$0.0	\$0.3	\$0.1	\$0.0	\$0.0	\$0.9	\$70.7	\$0.0	\$13.8	\$6.1	\$5.9	\$34.7	\$60.4	\$10.3
Year 8	\$58.7	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	\$58.3	\$9.3	\$18.1	\$12.0	\$2.7	\$18.1	\$60.2	-\$1.8
Year 9	\$53.4	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	\$53.0	\$7.2	\$17.5	\$12.0	\$0.0	\$16.8	\$53.5	-\$0.4
Years 10-14	\$265.8	\$2.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2.0	\$263.8	\$33.4	\$86.6	\$60.1	\$0.0	\$83.8	\$263.8	\$0.0
Year 10	\$53.2	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	\$52.8	\$6.7	\$17.3	\$12.0	\$0.0	\$16.8	\$52.8	\$0.0
Year 11	\$53.2	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	\$52.8	\$6.7	\$17.3	\$12.0	\$0.0	\$16.8	\$52.8	\$0.0
Year 12	\$53.2	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	\$52.8	\$6.7	\$17.3	\$12.0	\$0.0	\$16.8	\$52.8	\$0.0
Year 13	\$53.2	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	\$52.8	\$6.7	\$17.3	\$12.0	\$0.0	\$16.8	\$52.8	\$0.0
Year 14	\$53.2	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	\$52.8	\$6.7	\$17.3	\$12.0	\$0.0	\$16.8	\$52.8	\$0.0
Total, Years 5-14	\$569.4	\$5.1	\$17.1	\$1.0	\$0.5	\$2.5	\$0.1	\$26.3	\$543.1	\$49.9	\$153.2	\$97.6	\$10.5	\$184.5	\$495.7	\$47.4

Notes:

<sup>1</sup>The target reflects the completion of Phase I of the Franks Tract project and completion of Old River/Rock Slough Water Quality Improvement projects.

Water Quality Program Percent Allocation Beginning Year 7				
State	Federal	Local	Water Users	
			SWP	CVP
9.38%	23.89%	15.85%	1.49%	26.92%
			28.41%	

# Levee Program

## **Background and Funding History**

Many open issues surround a 10-year finance plan for the Levees Program, and there is a need to develop an interim finance strategy for the first 3 years, and have a check-in point for review of proposed funding targets and allocations in the 10-year plan after more information is available from potential new legislation and a Comprehensive Program Evaluation. Until the CPE is complete, the levees program would operate primarily under a status quo approach.

Between 2000 and 2004, funding for the Levees Program has totaled \$83.4 million, broken down as follows:

- \$68 million State – primarily bond funds
- \$0.7 million Federal
- \$1.2 million State Water Project contractors, and
- \$13.5 million local reclamation districts

Funding has averaged about \$21 million annually over this time period. Funding was for levee maintenance, levee improvements, habitat improvements, and studies. In addition, significant contributions were made before the ROD through DWR's Delta Levees subventions and special projects programs, which have been in place since 1972.

A long history of the Delta Levees program has shown that as funding for maintenance and improvements has gone up, incidents of levee failure have gone down.

**Program Organization:** The CALFED Levees Program has previously been organized and described in the ROD with two primary components: Base level protection (leading to PL 84-99 level of protection) and Special improvement projects. The relationship to DWR's existing Program: Delta Levee Subventions and Special Projects, has been confusing.

In order to propose financing options for the Levees program, the following organization is proposed:

*Levee Maintenance* – This component would be similar to DWR's existing subventions program, which provides for levee maintenance and improvements through a locally-driven subventions program. However, the objective of this component is to provide funding for levee maintenance only, with the priority for funding being on local flood control benefits. The maintenance program would continue to rely on the existing method of distributing funding; a locally-driven subventions program.

*Levee Improvements* – The objective of this component is to provide funding for levee improvements over an existing level of protection. This component would include, but would not be limited to, base level protection leading to the PL 84-99 level of protection. It would be similar to DWR's existing special projects program. Funding would be based on priority areas that will provide multiple benefits, such as flood protection, water quality, ecosystem restoration, water supply reliability, and

transportation benefits. Assuming existing state policy (existing legislation), this funding would provide for net habitat improvement in conjunction with levee maintenance as well as levee improvements. Funding allocations may vary by project depending on the benefits.

*All Other Components* – This component includes the comprehensive program evaluation (strategic plan), risk assessment, subsidence control plan, emergency response, beneficial reuse of dredge material, program management, oversight, and coordination.

*Suisun Marsh Levees* – Another component to the Levees Program is the Suisun Marsh Levees, which requires further study before accurate cost estimates and beneficiaries can be identified. The cost allocation remains an open issue in this straw proposal for further discussion and evaluation prior to the final 10-year finance plan in November.

***Future Information Affecting the Levees 10-year Finance Plan:*** The future of the levees program is uncertain based on several factors, including:

- *Program Sunset & Pending Legislation:* Existing legislation for the subventions and special projects programs will sunset on July 1, 2006. The administration is developing legislation to continue the Delta Levees Program. As part of the legislative process, changes could be made to this program that would affect financing.
- *Federal Authorization:* Proposed Federal authorization could provide as much as \$90 million for the Levees Program, including the Suisun Marsh Levees. Should authorization legislation pass, the associated appropriations/implementation language would be important in determining how the funding could be used for the Levees Program.
- *Comprehensive Program Evaluation (Strategic Plan):* Over the next two to three years a Comprehensive Program Evaluation (CPE) will be carried out. The CPE would incorporate the risk study that has been commissioned by DWR, including the expanded scope of the risk study currently being proposed by DWR. The CPE would supplement the DWR risk study to ensure that all relevant levee risks are considered. The CPE would include development of a formal strategic plan including a description of any proposed future program changes. The CPE would recommend priorities for the Delta Levees Program and would estimate funding needs. For example, the P.L. 84-99 ROD target will be reevaluated as part of the CPE, using information from the Risk Study.

### **Proposed 10-Year Finance Plan**

***Funding Targets:*** The funding targets have changed since the Draft Levees Issues paper was distributed, based on additional review from DWR and feedback from local interests. The revised annual funding targets are described below, and are subject to change before the November draft based on further review from agencies and stakeholders in the next month. When the funding targets are finalized in the next month, a rationale for each target and an explanation of changes will be provided in the next draft.

- a. Levee Maintenance - \$17 million. This is higher than the \$12 million that was proposed in the Issues Draft, based on additional input from DWR and local reclamation districts to reflect the annual need for Delta levee maintenance, including the local share.

- b. Levee Improvements - \$25 million. This is a lower estimate than the \$32 million that was included in the Issues Draft, based on additional input from DWR. Several water users have questioned why the funding target went down from the last draft, and additional review of this funding target is expected before the final draft of this straw proposal is submitted in November.
- c. All Other components (research, emergency response, studies, etc) - \$3 million. The previous Issues Draft included \$1.7 million, which was considered too low by stakeholders and agencies for the number of activities that were included here. Based on this feedback, DWR reviewed the cost estimates for this component and revised the annual funding target to \$3 million.
- Note: Currently, DWR staff costs associated with the implementation of the maintenance and improvements programs (called State Operations in the State Budget) are included under the funding targets for levee maintenance and improvements. In the next draft, these costs will be included under all other components, which will increase the funding target for all other components, and correspondingly reduce the funding targets for maintenance and/or improvements.
- d. Suisun Marsh - \$5 million per year is included as a placeholder for Years 6-9, and \$10 million per year is included for Years 10-14. The Issues Draft did not include funding targets for Suisun Marsh levees.

**Table 1.**

<b>Levees Program</b> <b>10-Year Funding Targets &amp; Unmet Needs <sup>1</sup></b> (\$ in millions) October 5, 2004								
Program Year	Funding Targets		Available Funding				Total Available	Unmet Needs
	Ongoing Annual	10-Year <sup>2</sup>	State		Federal	Local		
			GF	Prop 50	Approps.			
Levee Maintenance	\$17.0	\$166.3	\$0.1	\$40.5	\$0.2	\$4.0	\$44.8	\$461.0
Levee Improvements	\$25.0	\$236.5						
All Other Components (Studies/research, comprehensive program evaluation, emergency response, oversight & coordination)	\$3.0	\$33.0						
<b>Subtotal, Delta Levees</b>	<b>\$45.0</b>	<b>\$435.8</b>						
Suisun Marsh Levees	\$5 - \$10	\$70.0						
<b>Total</b>	<b>\$50 - \$55</b>	<b>\$505.8</b>	<b>\$0.1</b>	<b>\$40.5</b>	<b>\$0.2</b>	<b>\$4.0</b>	<b>\$44.8</b>	<b>\$461.0</b>
NOTES:								
1. Includes funding targets and unmet needs for Years 5-14 of the CALFED Program.								
2. 10-year funding targets are greater or less than ten times the annual targets because funding in the first few years varies.								

***Levee Maintenance:***

About \$13 million is needed for Year 5, with the funding target increasing to \$17 million per year beginning with Year 6. Available State bond funds (\$19.8 million) are sufficient for Year 5 & most of Year 6, but no funding is available for Year 7. (See Table 2 at the end of this write-up)

There are public State benefits from the levee maintenance program. Section 12981 of the Water Code that established the levee program reflects the statewide interest in preserving the Delta in its present form, including the protection of its assets such as agriculture, recreation, fisheries, and wildlife habitat. In addition, existing legislation requires that there is a net habitat improvement from the levees maintenance and improvements programs. While there are public benefits from levee maintenance, traditionally there is no Federal contribution for levee maintenance. There is general consensus among state, federal, and local interests that the maintenance program should remain locally driven (projects selected based on local interest/applications), and the federal government /USACE should not have a financial role.

Local landowners clearly benefit from a locally driven maintenance program. Under existing law, the state-local cost share for maintenance is up to 75% state share and at least 25% local share, but historically the distribution has been closer to a 50%-50% cost share due to limited state funding.

While Delta export water users benefit from levee improvements on certain islands by increased protection of water supply and water quality, the levee maintenance program component is locally driven and focused on local flood control benefits and, therefore, may not justify an export water user contribution.

***Proposed allocation:*** This straw proposal continues the status quo— up to 75% State, and no less than 25% local cost share. For a \$17 million annual maintenance program, this amounts to \$12.75 million State, and \$4.25 million local annually.

Based on the assumed split of available Prop 50 between levee maintenance and levee improvements, Prop 50 is available to fund the State share of levee maintenance for Year 5, and part of Year 6. After that, State funding will need to come from other sources. At this time a future water bond is not expected until Year 8 (State Fiscal Year 2007-08) at the earliest. Therefore, unless General Funds are allocated, there will be a funding gap for the levee maintenance program of \$2.2 million in Year 6, and \$12.8 million in Year 7. Given the experience of recent levee breaks and the potential risk of future breaks, it is a high priority that the levee maintenance program be adequately funded. Therefore, a General Fund request of \$12.8 million will be considered for State FY 2007-08. Contributions from boaters or other infrastructure beneficiaries are not proposed at this time, but may be considered through the comprehensive program evaluation, and proposed upon its completion.

***Levee Improvements:***

The levee improvements program provides multiple benefits, including water quality, water supply reliability, and habitat restoration. Therefore the program warrants contributions from the public (State and Federal), export and in-delta water users, and local land owners, because they all benefit from the levee improvements program.

Implementation of the levee improvement program will need to include a mixture of federally (USACE) managed improvements and state (DWR) managed improvements. This is because of difference in state and federal project justification/rules and the difference in method and schedule for implementation. The USACE process has different requirements for federal participation in improvements and the implementation of USACE lead projects takes significantly more time than the current DWR process.

\$11.5 million is needed for Year 5, with the funding target increasing to \$25 million per year, beginning with Year 6 (See Table 2). Assuming status quo levels of water user funding (\$0.3 million per year in SWP), and local contributions (\$0.5 million per year) continue, combined with available State bond funds (\$19.8 million, based on the assumed 50-50 split of Prop 50 between levee maintenance and levee improvements), the levee improvements program will be fully funded for Years 5 & 6, and part of Year 7. Not enough State funding would be available for the full State share in Year 7.

The Federal/USACE share for flood control project improvements is traditionally 65%. If the Senate federal authorization bill passes for the CALFED Program, up to \$90 million in Federal funding would be available. Under current flood control cost share formulas, local agencies are required to provide the lands, easements, rights-of-way, and often the ongoing cost of O&M. Some local Reclamation Districts are currently not required to cost share for levee improvements through DWR's special projects program if they have no documented ability to pay. As a placeholder, this draft straw proposal assumes that large federal appropriations (accounting for 65% of the annual needs for levee improvements) would be available beginning with Year 6. This assumption depends on passage of federal authorization in Year 5, and appropriations the following Federal fiscal year (FY 2006). The amount and timing of federal funding that is assumed in this straw proposal will be reviewed in the next month, and is subject to change in the next draft.

Export water users have expressed concern that any water user contribution should be directed to activities and projects that provide maximum benefit to them. A levee improvements program that funds projects focused on water supply/quality benefits seems to be appropriate for water user contributions that are linked to those benefits.

***Proposed allocation:*** At this time, it is premature to propose an appropriate share of funding from state, federal water users and local districts for the levee improvements program until the CPE is complete. However, this straw proposal includes an example allocation that shows a strong intent to develop a broader revenue pool from program beneficiaries in the future. Therefore the following cost share is proposed as a "placeholder" for levee improvements: Federal 65%, State 15%, Water user 15% (In-Delta, CVP exporters, SWP exporters), and Local 5%, which could be provided by LEERDs (lands, easements, rights-of-way, relocations, and disposal areas). LEERDs may exceed the proposed local cost share (5% of the project cost). To the extent LEERDs cover the non-Federal match for levee improvements (up to 35%), some portion of the State and water user share that is not needed to reach the 35% non-Federal cost share may be used to fund additional levee improvement projects with State and water user benefits.

For a \$25 million annual levee improvements program, the assumed cost share amounts to \$16.3 million Federal, \$3.8 million State, \$3.8 million water user, and \$1.3 million local. This straw proposal assumes that a new cost allocation that brings in the water user contributions would begin in Year 8, after the CPE is complete. In the interim (Years 5-7), the State would cover the funding gap from the lack of water user and local funding. Available Prop 50 is sufficient for Years 5-6, and part of Year 7, but General Funds would need to be requested to meet the full funding target for Year 7. A new State bond is assumed to cover the State share beginning with Year 8.

For Year 5, \$1 million is assumed for the Corps of Engineers to develop a report to Congress in 180 days to prioritize the project construction during years 2005 to 2010 (as described in current Senate Levee Integrity Program legislation) or if the legislation does not pass, the current Delta Island Reconnaissance Study may be used to implement as a cost share Feasibility Study between the USACE and DWR to identify and justify projects for Congressional authorization in the Delta. The proposed allocation will be reviewed, and possibly changed, prior to the November draft of this straw proposal, and again through the CPE process.

***All Other Components:*** All other components includes the comprehensive program evaluation (strategic plan), risk assessment, subsidence control plan, emergency response, beneficial reuse of dredge material, program management, oversight, and coordination.

Comprehensive Program Evaluation. CVP and SWP contractors have indicated that they may be willing to help pay for the development of a CPE, but that they would not be willing to pay for any levee improvements until a CPE is in place. The Risk Study is currently scheduled for completion by the end of 2005, but preliminary information may be available in November 2004. The CPE is scheduled to begin in Year 5, and to be completed by the middle of Year 7 (State FY 2006-07). A proposed allocation for the CPE will be included in the November Finance Plan after further discussion with agencies and stakeholders.

***Proposed Funding Allocation:*** The straw proposal for the Comprehensive Program Evaluation is an open issue, described below (see item #1 below, under outstanding issues). The remaining items under this category are activities that provide broad benefits, such as research, oversight, and coordination. It seems appropriate that these activities should be funded with public funds. It is proposed that the annual costs for all other components be funded 50/50 State/Federal.

### **Unresolved Issues:**

1. ***Comprehensive Program Evaluation*** -- At this time an allocation is not proposed for the CPE. Based on current DWR cost estimates, the CPE will cost \$4 million over a 2 year period, split over 3 fiscal years (\$1 million in Year 5, \$2 million in Year 6, \$1 million in Year 7). Given that the benefits of the CPE are broad across all beneficiaries, a mix of funding sources could be used to fund the CPE. Funding for the CPE is needed as early as this year, and not later than next fiscal year.

A group of State and Federal agency representatives, water users, and Delta interests will be convened in the next month to scope the CPE, including the development of cost estimates and a



timeline. This group will report back to the BDPAC Levees and Habitat Subcommittee in early November, and information from this group will be incorporated in the November Finance Plan .

2. ***Suisun Marsh Levees*** – DWR has proposed that the Suisun Marsh Levees program be included in the 10-year finance plan. The Suisun Marsh Levees were previously included under potential capital projects in the 10-year finance plan, for evaluation in the future when more information would be available about cost estimates and beneficiaries. If Suisun Marsh is included in the 10-year finance plan and allocations are proposed, any federal funding that would be proposed would reduce the amount of federal funding available for levee improvements. The table at the end of this paper does not include allocations yet for Suisun Marsh Levees, but if it is decided that Suisun Marsh Levees should be included in the 10-year finance plan for the Levees program, revised allocations may need to be proposed for each of the levees program components.
3. ***Proposition 50 Funding*** – This draft splits available Prop 50 funding 50-50 between levee maintenance and improvements in the interim, until a CPE is complete. This draft also assumes that federal funding would be available for levee improvements in Year 6, which reduces the need for Prop 50 to meet the funding target for improvements, leaving some Prop 50 available for Year 7 for levee improvements. However, the proposed 50-50 split of Prop 50 means that there is a funding gap for levee maintenance in Year 6, while levee improvements are fully funded (see Table 2). Prior to the final draft of this straw proposal in November, the proposed split of Prop 50 between levee maintenance and improvements will be reviewed, and possibly changed from the current placeholder assumption. For example, if federal appropriations are available as early as Year 6, and \$2.2 million of Prop 50 were shifted from levee improvements to levee maintenance, then both levee improvements and maintenance would be fully funded through Year 6.

Table 2.

Levees Program Straw Proposal-Funding Allocations (\$ in millions) October 6, 2004													
Program Component / Year	Funding Targets	Available Fund Sources				Total Available	Unmet Needs	Proposed Funding for Unmet Needs <sup>2</sup>				Total Funding Proposed	Remaining Funding Gaps
		State		Federal				State	Federal <sup>3</sup>	Export Water Users (SWP/CVP) & In-Delta			
		GF	Prop 50 <sup>1</sup>	Approps									
Levee Maintenance	\$166.3	\$0.0	\$19.8	\$0.0	\$4.0	\$23.8	\$142.5	\$102.0	\$0.0	\$0.0	\$38.3	\$140.3	\$2.2
Year 5	\$13.3		\$9.3		\$4.0	\$13.3	\$0.0					\$0.0	\$0.0
Year 6	\$17.0		\$10.6			\$10.6	\$6.5				\$4.3	\$4.3	\$2.2
Year 7	\$17.0					\$0.0	\$17.0	\$12.8			\$4.3	\$17.0	\$0.0
Year 8	\$17.0					\$0.0	\$17.0	\$12.8			\$4.3	\$17.0	\$0.0
Year 9	\$17.0					\$0.0	\$17.0	\$12.8			\$4.3	\$17.0	\$0.0
Year 10	\$17.0					\$0.0	\$17.0	\$12.8			\$4.3	\$17.0	\$0.0
Year 11	\$17.0					\$0.0	\$17.0	\$12.8			\$4.3	\$17.0	\$0.0
Year 12	\$17.0					\$0.0	\$17.0	\$12.8			\$4.3	\$17.0	\$0.0
Year 13	\$17.0					\$0.0	\$17.0	\$12.8			\$4.3	\$17.0	\$0.0
Year 14	\$17.0					\$0.0	\$17.0	\$12.8			\$4.3	\$17.0	\$0.0
Levee Improvements <sup>4</sup>	\$236.5	\$0.0	\$19.8	\$0.0	\$0.0	\$19.8	\$216.7	\$32.1	\$147.3	\$27.2	\$10.3	\$216.7	\$0.0
Year 5	\$11.5		\$9.7			\$9.7	\$1.8		\$1.0	\$0.3	\$0.5	\$1.9	\$0.0
Year 6	\$25.0		\$8.0			\$8.0	\$17.1		\$16.3	\$0.3	\$0.5	\$17.1	\$0.0
Year 7	\$25.0		\$2.2			\$2.2	\$22.9	\$5.8	\$16.3	\$0.3	\$0.5	\$22.9	\$0.0
Year 8	\$25.0					\$0.0	\$25.0	\$3.8	\$16.3	\$3.8	\$1.3	\$25.0	\$0.0
Year 9	\$25.0					\$0.0	\$25.0	\$3.8	\$16.3	\$3.8	\$1.3	\$25.0	\$0.0
Year 10	\$25.0					\$0.0	\$25.0	\$3.8	\$16.3	\$3.8	\$1.3	\$25.0	\$0.0
Year 11	\$25.0					\$0.0	\$25.0	\$3.8	\$16.3	\$3.8	\$1.3	\$25.0	\$0.0
Year 12	\$25.0					\$0.0	\$25.0	\$3.8	\$16.3	\$3.8	\$1.3	\$25.0	\$0.0
Year 13	\$25.0					\$0.0	\$25.0	\$3.8	\$16.3	\$3.8	\$1.3	\$25.0	\$0.0
Year 14	\$25.0					\$0.0	\$25.0	\$3.8	\$16.3	\$3.8	\$1.3	\$25.0	\$0.0

**Levees Program**  
**Straw Proposal-Funding Allocations**  
(\$ in millions)  
October 6, 2004

Program Component / Year	Funding Targets	Available Fund Sources				Total Available	Unmet Needs	Proposed Funding for Unmet Needs <sup>2</sup>				Total Funding Proposed	Remaining Funding Gaps
		State		Federal				State	Federal <sup>3</sup>	Export Water Users (SWP/CVP) & In-Delta			
		GF	Prop 50 <sup>1</sup>	Approps									
All Other Components (Studies/Research, Oversight & Coordination) <sup>5</sup>	\$33.0	\$0.1	\$0.9	\$0.2	\$0.0	\$1.2	\$31.8	\$13.0	\$13.5	\$0.0	\$0.0	\$26.5	\$5.3
Year 5	\$3.0	\$0.0	\$0.5	\$0.2		\$0.7	\$2.3	\$0.0				\$0.0	\$2.3
Year 6	\$5.0	\$0.0	\$0.4			\$0.4	\$4.6	\$1.1	\$1.5			\$2.6	\$2.0
Year 7	\$4.0	\$0.0				\$0.0	\$4.0	\$1.5	\$1.5			\$3.0	\$1.0
Year 8	\$3.0	\$0.0				\$0.0	\$3.0	\$1.5	\$1.5			\$3.0	\$0.0
Year 9	\$3.0	\$0.0				\$0.0	\$3.0	\$1.5	\$1.5			\$3.0	\$0.0
Year 10	\$3.0	\$0.0				\$0.0	\$3.0	\$1.5	\$1.5			\$3.0	\$0.0
Year 11	\$3.0	\$0.0				\$0.0	\$3.0	\$1.5	\$1.5			\$3.0	\$0.0
Year 12	\$3.0	\$0.0				\$0.0	\$3.0	\$1.5	\$1.5			\$3.0	\$0.0
Year 13	\$3.0	\$0.0				\$0.0	\$3.0	\$1.5	\$1.5			\$3.0	\$0.0
Year 14	\$3.0	\$0.0				\$0.0	\$3.0	\$1.5	\$1.5			\$3.0	\$0.0
Total	\$435.8	\$0.1	\$40.5	\$0.2	\$4.0	\$44.8	\$390.9	\$147.0	\$160.8	\$27.2	\$48.5	\$383.4	\$7.5
Year 5	\$27.8	\$0.0	\$19.5	\$0.2	\$4.0	\$23.7	\$4.1	\$0.0	\$1.0	\$0.3	\$0.5	\$1.8	\$2.3
Year 6	\$47.0	\$0.0	\$18.9	\$0.0	\$0.0	\$18.9	\$28.1	\$1.1	\$17.8	\$0.3	\$4.8	\$23.9	\$4.2
Year 7	\$46.0	\$0.0	\$2.2	\$0.0	\$0.0	\$2.2	\$43.8	\$20.0	\$17.8	\$0.3	\$4.8	\$42.8	\$1.0
Year 8	\$45.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$45.0	\$18.0	\$17.8	\$3.8	\$5.5	\$45.0	\$0.0
Year 9	\$45.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$45.0	\$18.0	\$17.8	\$3.8	\$5.5	\$45.0	\$0.0
Subtotal, Years 5-9	\$210.8	\$0.1	\$40.5	\$0.2	\$4.0	\$44.8	\$166.0	\$57.1	\$72.0	\$8.4	\$21.0	\$158.5	\$7.5
Year 10	\$45.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$45.0	\$18.0	\$17.8	\$3.8	\$5.5	\$45.0	\$0.0
Year 11	\$45.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$45.0	\$18.0	\$17.8	\$3.8	\$5.5	\$45.0	\$0.0
Year 12	\$45.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$45.0	\$18.0	\$17.8	\$3.8	\$5.5	\$45.0	\$0.0
Year 13	\$45.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$45.0	\$18.0	\$17.8	\$3.8	\$5.5	\$45.0	\$0.0
Year 14	\$45.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$45.0	\$18.0	\$17.8	\$3.8	\$5.5	\$45.0	\$0.0
Subtotal, Years 10-14	\$225.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.1	\$224.9	\$89.9	\$88.8	\$18.8	\$27.5	\$224.9	\$0.0

Notes:

1. \$40.5 million remaining from Prop 50 for Year 5 and beyond. Actual timing of bond approval and issuance may differ.

2. This straw proposal includes a straw proposal that is still under review for Years 5-7, and an example allocation for Years 8-14. Any allocations shown for Years 8-14 are subject to review and change upon completion of the comprehensive program evaluation, when a check-in will be needed for the 10-year finance plan for the Levees Program.

3. Federal estimates are subject to future appropriations and availability of funds.

4. The local share for levee improvements may come from LEERDs (lands, easements, rights-of-way, relocations, and disposals). To the extent LEERDs are sufficient to cover the non-Federal match, additional State and water user funding that would no longer be needed as a non-Federal match may be available to fund additional levee improvement projects.

5. All Other components includes oversight & coordination, subsidence control plan, emergency response, risk assessment, and beneficial reuse of dredge material.

Table 3.

Delta Levees Program 10-Year Funding Example Allocations Annual % Allocations, Beginning Year 8									
Program Component	Funding Targets	Allocations, beginning Year 8							
		State		Federal		Export Water Users		Local	
		\$	%	\$	%	\$	%	\$	%
Levee Maintenance	\$17.0	\$12.8	75.0%					\$4.3	25.0%
Levee Improvements	\$25.0	\$3.8	15.0%	\$16.3	65.0%	\$3.8	15.0%	\$1.3	5.0%
All Other Components (Comprehensive Program Evaluation, Studies/Research, Oversight & Coordination)	\$3.0	\$1.5	50.0%	\$1.5	50.0%				
<b>Overall Program Total</b>	<b>\$45.0</b>	<b>\$18.0</b>	<b>40.0%</b>	<b>\$17.8</b>	<b>39.4%</b>	<b>\$3.8</b>	<b>8.3%</b>	<b>\$5.5</b>	<b>12.2%</b>

Table 4.

Delta Levees Program 10-Year Total % Allocations									
Program Component	Funding Targets	Total Allocations, Years 5-14							
		State		Federal		Export Water Users		Local	
		\$	%	\$	%	\$	%	\$	%
Levee Maintenance	\$166.3	\$121.8	73.2%					\$42.3	25.4%
Levee Improvements	\$236.5	\$51.9	21.9%	\$147.3	62.3%	\$27.2	11.5%	\$10.3	4.3%
All Other Components (Comprehensive Program Evaluation, Studies/Research, Oversight & Coordination)	\$33.0	\$14.0	42.5%	\$13.5	40.9%	\$0.0	0.0%		
<b>Overall Program Total <sup>1</sup></b>	<b>\$435.8</b>	<b>\$187.7</b>	<b>43.1%</b>	<b>\$160.8</b>	<b>36.9%</b>	<b>\$27.2</b>	<b>6.2%</b>	<b>\$52.5</b>	<b>12.0%</b>

<sup>1</sup> Does not add to 100% due to a funding gap in Year 6 for levee maintenance, and for Years 5-7 for the comprehensive program evaluation (CPE).

# Storage Program

## **Background and Funding History**

The goal of the Storage Program is to expand storage capacity to increase system operational flexibility, improve water supply reliability and water quality, and support ecosystem restoration efforts including specifically fish restoration. The program is investigating five potential surface storage projects and is funding a program to expand groundwater storage and conjunctive use. In addition, the San Luis Reservoir Low Point Improvement Project is designed to improve both water quality and water supply from the existing San Luis Reservoir, and feasibility investigations for that project are included in this funding proposal.<sup>1</sup>

A total of over \$298 million has been spent on the Program during the four-year period 2000-2004: \$71.3 million on the surface storage investigations, \$213.5 million on the groundwater storage program<sup>2</sup>, and \$13.6 million on the San Luis Reservoir Low Point Improvement Project investigation. The groundwater storage program includes feasibility study grants, technical assistance, storage and recharge implementation grants and loans, and oversight and coordination. The Table below summarizes the spending to date on the Storage Program components.

## **Proposed 10-Year Finance Plan**

Over the next 10 years the Storage Program will continue to fund surface storage investigations and various groundwater storage activities, including studies, technical assistance, and implementation projects.

### **1. Groundwater Storage/Conjunctive Use**

#### ***Funding targets***

The Program has supported the development of groundwater storage and conjunctive use projects through 2004. These projects are currently being monitored to determine the long-term increase in storage and new yield that they are providing. The Program intends to develop a similar amount of additional storage and yield from groundwater projects over the next 10 years. To achieve this yield and storage, \$1 billion of funding is proposed, including significant cost sharing by local partners. The \$1 billion dollar funding target is a projection based on preliminary estimates of the effectiveness from Years 1-4 of the program. Program managers will continue to evaluate the performance of already funded projects and to improve estimates of the costs and cost-effectiveness of potential projects.

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<sup>1</sup> The San Luis Reservoir Low Point Improvement Project (LPIP) was previously included as a component of the Conveyance Program, but has been shifted to the Storage Program for purposes of developing the plan to finance its study. The LPIP was previously being considered as part of a broad package of Delta improvements, and thus was included in the conveyance program. The LPIP would provide both storage and water quality benefits.

<sup>2</sup> \$79.2 million of the groundwater storage program has not been formally obligated for projects, and is shown below as available funding in Year 5.

The total funding target is spread evenly over the planning period, with the exception that Year 5 funding is based on existing available funds, including local contributions. The even distribution of funding target is an assumption for planning purposes; actual expenditures are expected to vary from year to year based on actual revenue patterns and the timing of grant programs and other programs. Initial years of funding would be from available funds expected from Proposition 13 and 50.

### ***Existing Funding Available***

Available funds include:

- Federal public share
  - None identified
- State public share
  - \$79.2 million available from Proposition 13, assumed to be spent in Year 5.
  - \$31.2 million is available from Proposition 50, spread across Years 5-7<sup>3</sup>.
- Local users' share of \$263 million is estimated to be available in Year 5, predominantly the local share already committed to match grants provided from Proposition 13.

These sources leave a funding gap of \$627 million over the 10-year period.

### ***Proposed Funding Allocation***

The following assumptions and rationale are used to propose funding for the remaining gap:

- A key finance principle for this groundwater financial assistance will be that cost shares will be based on the expected distribution of local and statewide benefits and will vary from project to project. These cost shares will be determined through competitive proposal solicitation processes for each funding year. A fixed cost share for projects is not proposed.
- For planning and budgeting purposes the following overall average cost share is proposed -- 75% local share grant matching and 25% state/federal share. This approximates the observed cost shares of recent groundwater storage grant programs funded through Proposition 13. The 75% local share applies as an average match to both the available state funding in years 5-7 and to all proposed state and federal funding. A public cost share can be justified because groundwater/conjunctive use projects may have broad regional benefits, including water supply and water quality benefits, and may reduce current or future demands on the Delta. The assumed 75% local cost share reflects recent projects funded by the program plus other cost-effective projects that were not funded due to constraints on available grant funds. Some have questioned the need to provide a public share for locally cost-effective projects. However, public funding can be justified in cases of broad regional benefits, direct or indirect benefits to the Bay-Delta system, and local implementation difficulties (e.g. financial constraints or inter-jurisdictional conflicts).
- The combined state/federal share is 25% of program costs. The Draft Finance Options Report proposed allocations in which the state and federal shares were equal. Federal participation in the groundwater storage and conjunctive use program has been very small in years 1-4, but federal participation is considered justified because:

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<sup>3</sup> Available funds are estimates of how much money from Proposition 50 will be used for groundwater storage activities and projects. The total assumes that money is available from Chapter 7, paragraph d and from Chapter 8. It includes money planned to support groundwater storage projects and groundwater management activities under AB 303.

- Many conjunctive use projects have broad public benefits for demonstration and technology development, and they can provide direct or indirect benefits for the Bay-Delta system.
- The proposed federal authorization bill for the CALFED Program states, "The Secretary shall conduct activities related to developing groundwater storage projects to the extent authorized under law".

Although Reclamation has not played a large role in the groundwater projects, there appear to be federal benefits associated with groundwater management. Reclamation has advised CBDA that its existing, ongoing authority is limited to technical assistance and appraisal-level studies. For this straw proposal, it was assumed that the federal government (Reclamation) would provide \$0.1 million per year in groundwater financial assistance beginning in Year 6 (Federal FY 2006).<sup>4</sup>

Accordingly, the straw proposal fills the funding gap using three sources of funds:

- § State funding of \$125.2 million would be provided beginning in Year 8, primarily through bond funding (although some Program costs could be supported by general fund appropriation or other state source).
- Federal funding of \$0.9 million would be used in Years 6-14.
- Local funding of \$440.7 million, representing the 75% local cost share.

A remaining gap of \$59.9 million in years 6 and 7 results from the state's share from the depletion of available bond funds and the delay in new bond funding until year 8.

### ***Periodic Review***

Periodic review of program objectives, funding targets, and program effectiveness is warranted, both for potential revisions to funding targets and for longer-term planning beyond the 10-year Plan's horizon. Future decisions about other CALFED programs such as surface storage can affect the benefits and costs of groundwater storage and conjunctive use projects.

## **2. Planning Studies: Surface Storage Investigations, San Luis Reservoir Low Point Improvement Project Investigation, and Oversight and Coordination**

### ***Funding targets***

Planning studies will continue for up to five projects currently under investigation. It is expected that one or more of the five projects may be removed from consideration based on study results, and projected 10-year costs for the Storage Program would be reduced. At present, all five studies are continuing, and costs for all studies are included below. The San Luis Reservoir Low Point Improvement Project Investigation is also planned to continue through Years 5 and 6.

A total of \$87.2 million is needed to complete planning studies:

- \$14.3 million for North of Delta Offstream Storage

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<sup>4</sup> CBDA supports the increase of federal authorization and funding of groundwater storage. If such funding becomes available, CBDA would support up to one-half of the public share of the groundwater program cost being contributed from federal sources.

- \$10.4 million for Shasta Lake Enlargement
- \$5.5 million for In-Delta Storage Investigation
- \$21.1 million for Los Vaqueros Expansion
- \$13.2 million for Upper San Joaquin Storage Investigation
- \$17.4 million for the San Luis Reservoir Low Point Improvement Investigation
- \$5.3 million for Oversight and Coordination

Many of these studies are planned for completion within the next three years, so the majority of the funding is needed during years 5-7; otherwise the studies will be delayed.

### ***Existing Funding Available***

The 2005 federal budget includes \$2.5 million for continued surface storage investigations. \$0.3 million is budgeted from the State's general fund in year 5. An additional \$31.8 million is estimated available from Proposition 50 bond proceeds to support surface storage investigations and Oversight and Coordination of the program. No funding is currently available for the San Luis Low point project study.

These sources leave a funding gap of \$52.6 million. The funding targets, available funding, and unmet needs for the planning studies are summarized in the table below, with the figures totaled for the 10-year Plan.

Summary of 10-Year Funding Targets & Unmet Needs Storage Program Planning Studies (\$ in millions) October 5, 2004								
Program Component	Funding Targets <sup>1</sup>	Available Fund Sources					Total Available Funds	Unmet Needs
		State			Federal Approp. <sup>2</sup>	Local		
		GF	Prop 13	Prop 50				
North-of-the-Delta Offstream Storage	\$14.3	\$0.0	\$0.0	\$10.7	\$0.6	\$0.0	\$11.3	\$3.0
Shasta Lake Enlargement	\$10.4	\$0.0	\$0.0	\$0.5	\$0.6	\$0.0	\$1.1	\$9.3
In-Delta Storage Investigations	\$5.5	\$0.0	\$0.0	\$5.5	\$0.0	\$0.0	\$5.5	\$0.0
Los Vaqueros Reservoir Expansion	\$21.1	\$0.0	\$0.0	\$10.0	\$0.6	\$0.0	\$10.6	\$10.5
Upper San Joaquin Storage Investigations	\$13.2	\$0.0	\$0.0	\$2.1	\$0.6	\$0.0	\$2.7	\$10.5
San Luis Reservoir LPIP	\$17.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$17.4
Oversight & Coordination	\$6.7	\$0.3	\$0.0	\$2.6	\$0.1	\$0.0	\$3.0	\$3.7
Total	\$88.5	\$0.3	\$0.0	\$31.4	\$2.5	\$0.0	\$34.2	\$54.3
1. Total remaining funding needed over the 10-year Plan. 2. Includes \$0.5 million in CVP yield increase planning spread over studies with specific federal funding available , plus O&C.								



### ***Proposed Funding Allocation***

Over the first 4 years of the program, DWR and Reclamation have distributed lead responsibility for the different studies, resulting in the following distribution of costs:

- North-of-Delta Off-stream Storage: 90% state/10% federal
- Shasta Lake Enlargement: 10% state/90% federal
- In-Delta Storage Investigation: 95% state/5% federal
- Los Vaqueros Expansion: 56% state/44% federal
- Upper San Joaquin Storage Investigation: 27% state/73% federal
- San Luis Reservoir Low Point Improvement Investigation: 88% state/12% federal
- Oversight and Coordination: 100% state.

Continued funding of the planning studies is important for sustaining progress in the storage program and maintaining balance across CALFED programs. State and federal budget constraints could hinder the timely completion of the studies. State funding is especially constrained until voters could pass another statewide bond or additional General fund is appropriated. Funding from a new bond could become available in year 8 at the soonest, whereas much of the funding for the planning studies is needed during years 5-7. To avoid delaying the studies, local sources of funding can be sought. The following funding strategy is recommended to fill the unmet funding need:

1. Pursue water user contributions for the planning studies. Water users that could benefit from storage projects may be able and willing to provide some funding to maintain progress on the planning studies. SWP contractors, CVP contractors, and other water users could be willing to help fund studies.
2. Pursue additional state and federal appropriations. Appropriations are difficult to garner, especially from the State, but could be used to augment local water user funds.
3. Pursue funding from a new statewide bond. Such funding could become available to fund study costs in years 8 and beyond. Note that if most new funding comes from this source, a number of the studies would be delayed.
4. The Surface Storage table shows funding from State and federal sources as a fallback allocation at this time.

A process is currently underway (the Common Assumptions process) to develop information about the 5 surface storage projects. Results will allow the projects' performance, costs, and benefits to be compared using a consistent approach, and will inform decisions about project priorities and appropriate allocation of planning costs. In addition, DWR is in the process of working with local areas and water users to identify if there are interested participants for each project. This will help to identify which projects have the greatest local interest and possible willingness to pay for project costs. This effort should be completed in early 2005.

The Straw Proposal Funding Allocation Table below shows the annual funding targets, available funding, and unmet needs for the 5 surface storage planning studies, San Luis LPIP, and Oversight and Coordination.

Costs for the 5 planning studies are allocated between state and federal public according to the pattern of funding during to date (see above). Note that, because it is unlikely that the state's share would become available until Year 8, a gap is shown in the early years of funding need. The proposed funding assumes that that gap will be made up in later years once funding becomes available (shown in the tables as a "negative" gap). This implies that reliance on state bond funding for these studies will result in significant delays in completing the studies, particularly for those with large state participation. Timely federal funding could also be difficult to obtain.

For San Luis Reservoir LPIP, spending to date has been 88% state and 12% federal. There is general agreement that this project will be a CVP and federal taxpayer supported project. Reclamation is currently preparing an appraisal report to determine its interest in further study of the project, and could fund up to 50% of remaining costs of the study. CVP contractors have indicated they will be a primary contributor to this project. They intend to develop and provide to the CALFED Program a proposal for how to share the costs of this planning study between the CVP and the water users. The proposed federal authorization bill for the CALFED Program authorizes federal funding for feasibility, evaluation and implementation of the San Luis Low point project (under the conveyance section). A total of \$184 million is authorized for the Conveyance activities but the amount per project is not specified. It is assumed that the CVP and federal non-reimbursable shares for this project identified in this straw proposal would draw from the total amount authorized. The proposed allocation of remaining costs is assumed to be 50% federal public and 50% CVP users.<sup>5</sup> Federal money is not expected to be available to support Year 5 spending, so a gap is shown for that year. The funding gap is assumed to be offset with funding available in Year 6.

Oversight and Coordination also shows a gap in funding for Years 6 and 7. This proposal assumes that this gap cannot be offset by additional funding in later years – Oversight and Coordination is an on-going activity that cannot be delayed in the same way that a study can be delayed.

### **Periodic Review**

Agencies and stakeholders agree that not all of the surface storage planning studies may be carried to completion. Hydrologic, environmental, and economic analyses are expected to provide information on which to base a decision about which studies should move to the next phase and potentially to project construction. Study cost estimates will also be assessed and revised as more information is gained.

### **Potential Capital Projects**

One or more of the surface storage studies could lead to project construction. Construction costs are not included in the funding targets for this 10-year Plan. The table below summarizes the preliminary estimates of construction costs for the five potential surface storage projects and for the San Luis Reservoir LPIP. These estimates do not include annual operations costs and may not be strictly comparable among them. The Common Assumptions process currently underway within the CALFED program and the implementing agencies is designed to create a common set of analytical

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<sup>5</sup> Although initial funding of some or all of the planning costs is born by federal public, such costs may eventually be reimbursed by beneficiaries if the project is constructed. The CVP has a cost allocation process to determine how project costs are to be allocated and reimbursed among beneficiaries. Some or all of the planning costs of a constructed project could be allocated to and reimbursed by CVP contractors.

approaches and information on which to compare the projects' potential performance and costs. Therefore, the cost estimates shown below provide only a rough comparison of the relative magnitude and timing of construction costs for the projects if they are built. Costs are shown only for the period covered by the 10-year Plan – additional construction costs may extend beyond the 10-year period.

<b>Construction Cost Estimates for Potential Capital Projects – Surface Storage</b> <b>10-Year Funding Targets</b> <b>(2003 \$ in millions)</b>						
	North-of-Delta Offstream Storage	Shasta Lake Enlargement	In-Delta Storage	Los Vaqueros Expansion	Upper San Joaquin Storage	San Luis Reservoir Low Point Improvement
Year 5						
Year 6						\$12.9
Year 7			\$5.0			\$34.0
Year 8	\$60.0		\$105.0			\$61.5
Year 9	\$130.0		\$162.0	\$95.0		\$111.6
Year 10	\$360.0	\$14.0	\$126.0	\$240.0	\$30.0	\$114.2
Year 11	\$360.0	\$14.0	\$126.0	\$250.0	\$30.0	\$114.2
Year 12	\$360.0	\$100.0	\$125.0	\$250.0	\$130.0	\$113.8
Year 13	\$360.0	\$100.0	\$125.0	\$250.0	\$130.0	\$6.6
Year 14	\$370.0	\$100.0			\$130.0	\$6.6
10-Year Total	\$2000.00	\$328.00	\$774.00	\$1085.00	\$450.00	\$575.40

This 10-year Plan does not propose financing tools or an allocation of potential construction costs because no decision has been made on whether to proceed with any of these projects. If construction of a surface storage project were to be recommended, the Draft Finance Options Report proposed a benefits-based approach for allocating costs. This is broadly consistent with the way both the SWP and the CVP have allocated project construction costs. Beneficiaries could include water users, power users, recreation, and any other group identified as benefiting from a storage project.

**Storage Program - Groundwater and Conjunctive Use  
Straw Proposal - Funding Allocation**

(\$ in millions)  
October 5, 2004

Program Year	Funding Targets <sup>1</sup>	Available Funding					Total Available	Unmet Needs	Proposed Funding for Unmet Needs					Total Funding Proposed	Remaining Gap <sup>6</sup>	
		State			Federal											
		GF	Prop 13 <sup>2</sup>	Prop 50 <sup>3</sup>	Approp								Local <sup>4</sup>			
Groundwater Storage/Conjunctive Water Management Program																
Year 5	\$352.6		\$79.2	\$10.4		\$263.0	\$352.6	\$0.0	\$0.0	\$0.0			\$0.0	\$0.0	\$0.0	
Year 6	\$71.9			\$10.4			\$10.4	\$61.5	\$0.0	\$0.1			\$31.5	\$31.6	\$29.9	
Year 7	\$71.9			\$10.4			\$10.4	\$61.5	\$0.0	\$0.1			\$31.5	\$31.6	\$29.9	
Year 8	\$71.9						\$0.0	\$71.9	\$17.9	\$0.1			\$54.0	\$71.9	\$0.0	
Year 9	\$71.9						\$0.0	\$71.9	\$17.9	\$0.1			\$54.0	\$71.9	\$0.0	
Year 10	\$71.9						\$0.0	\$71.9	\$17.9	\$0.1			\$54.0	\$71.9	\$0.0	
Year 11	\$71.9						\$0.0	\$71.9	\$17.9	\$0.1			\$54.0	\$71.9	\$0.0	
Year 12	\$71.9						\$0.0	\$71.9	\$17.9	\$0.1			\$54.0	\$71.9	\$0.0	
Year 13	\$71.9						\$0.0	\$71.9	\$17.9	\$0.1			\$54.0	\$71.9	\$0.0	
Year 14	\$71.9						\$0.0	\$71.9	\$17.9	\$0.1			\$54.0	\$71.9	\$0.0	
Total	\$1,000.0	\$0.0	\$79.2	\$31.2	\$0.0	\$263.0	\$373.4	\$626.6	\$125.2	\$0.9	\$0.0	\$0.0	\$440.7	\$566.7	\$59.9	

Notes:

- 1 The pattern of funding assumes an first round of capital expenditures in years 5-7 and a second round beginning in Year 8
2. Disbursement of Prop 13 funds previously awarded.
3. Estimated funding of groundwater storage projects and programs from Chapters 7(section d) and 8 of Proposition 50.
4. Local cost share associated with year 5 state bond funding.
5. Assumes a 25% cost share from years 8-14.
6. The federal share is limited to \$100,000 per year for technical assistance and appraisal-level studies.

**Storage Program - Groundwater and Conjunctive Use  
Percent Allocation from Years 5-14**

State	Federal <sup>7</sup>	Water User			Local	Unallocated Gap
		SWP	CVP	Other Water Users		
		0.0%	0.0%	0.0%		
<b>23.6%</b>	<b>0.1%</b>				<b>70.4%</b>	<b>6.0%</b>

7. The federal share is limited to \$100,000 per year for technical assistance and appraisal-level studies.

**Storage Program - Detail for Surface Storage Planning Studies  
Straw Proposal - Funding Allocation**

(\$ in millions)  
October 5, 2004

Program Year	Funding Targets <sup>1</sup>	Available Funding					Total Available	Unmet Needs	Proposed Funding for Unmet Needs					Total Funding Proposed	Remaining Gap	
		State			Federal											
		GF	Prop 13	Prop 50 <sup>2</sup>	Approp. <sup>3</sup>								Local <sup>4</sup>			
North-of-the-Delta Offstream Storage - planning																
Year 5	\$7.0			\$6.2	\$0.6		\$6.8	\$0.2	\$0.0	\$0.0					\$0.2	
Year 6	\$3.8			\$3.3			\$3.3	\$0.5	\$0.0	\$0.5					\$0.0	
Year 7	\$3.5			\$1.2			\$1.2	\$2.3	\$0.0	\$0.2					\$2.1	
Year 8							\$0.0	\$0.0	\$2.2	\$0.2					-\$2.3	
Year 9							\$0.0	\$0.0							\$0.0	
Year 10							\$0.0	\$0.0							\$0.0	
Year 11							\$0.0	\$0.0							\$0.0	
Year 12							\$0.0	\$0.0							\$0.0	
Year 13							\$0.0	\$0.0							\$0.0	
Year 14							\$0.0	\$0.0							\$0.0	
Total	\$14.3	\$0.0	\$0.0	\$10.7	\$0.6	\$0.0	\$11.3	\$3.0	\$2.2	\$0.8	\$0.0	\$0.0			\$0.0	
Shasta Lake Enlargement - planning																
Year 5	\$0.6	\$0.0		\$0.0	\$0.6		\$0.6	\$0.0	\$0.0	\$0.0					\$0.0	
Year 6	\$4.1	\$0.0		\$0.2			\$0.2	\$3.9	\$0.0	\$3.7					\$0.2	
Year 7	\$3.5	\$0.0		\$0.1			\$0.1	\$3.4	\$0.0	\$3.2					\$0.3	
Year 8	\$1.7	\$0.0		\$0.1			\$0.1	\$1.6	\$0.3	\$1.5					-\$0.3	
Year 9	\$0.3	\$0.0		\$0.1			\$0.1	\$0.2	\$0.1	\$0.2					-\$0.1	
Year 10	\$0.2	\$0.0		\$0.0			\$0.0	\$0.2	\$0.1	\$0.2					-\$0.1	
Year 11		\$0.0					\$0.0	\$0.0							\$0.0	
Year 12		\$0.0					\$0.0	\$0.0							\$0.0	
Year 13		\$0.0					\$0.0	\$0.0							\$0.0	
Year 14		\$0.0					\$0.0	\$0.0							\$0.0	
Total	\$10.4	\$0.0	\$0.0	\$0.5	\$0.6	\$0.0	\$1.1	\$9.3	\$0.5	\$8.8	\$0.0	\$0.0			\$0.0	

**Storage Program - Detail for Surface Storage Planning Studies  
Straw Proposal - Funding Allocation**

(\$ in millions)  
October 5, 2004

Program Year	Funding Targets <sup>1</sup>	Available Funding					Total Available	Unmet Needs	Proposed Funding for Unmet Needs					Total Funding Proposed	Remaining Gap	
		State			Federal											
		GF	Prop 13	Prop 50 <sup>2</sup>	Approp. <sup>3</sup>								Local <sup>4</sup>			State <sup>5</sup>
In-Delta Storage Investigations - planning																
Year 5	\$3.5				\$3.5			\$3.5	\$0.0	\$0.0	\$0.0					\$0.0
Year 6	\$2.0				\$2.0			\$2.0	\$0.0	\$0.0	\$0.0					\$0.0
Year 7								\$0.0	\$0.0							\$0.0
Year 8								\$0.0	\$0.0							\$0.0
Year 9								\$0.0	\$0.0							\$0.0
Year 10								\$0.0	\$0.0							\$0.0
Year 11								\$0.0	\$0.0							\$0.0
Year 12								\$0.0	\$0.0							\$0.0
Year 13								\$0.0	\$0.0							\$0.0
Year 14								\$0.0	\$0.0							\$0.0
Total	\$5.5	\$0.0	\$0.0	\$5.5	\$0.0	\$0.0	\$5.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0				\$0.0
Los Vaqueros Reservoir Expansion - planning																
Year 5	\$7.2				\$6.6	\$0.6		\$7.2	\$0.0	\$0.0	\$0.0					\$0.0
Year 6	\$7.3				\$3.2			\$3.2	\$4.1	\$0.0	\$3.2					\$0.9
Year 7	\$6.1				\$0.2			\$0.2	\$5.9	\$0.0	\$2.7					\$3.2
Year 8	\$0.5							\$0.0	\$0.5	\$4.4	\$0.2					-\$4.1
Year 9								\$0.0	\$0.0							\$0.0
Year 10								\$0.0	\$0.0							\$0.0
Year 11								\$0.0	\$0.0							\$0.0
Year 12								\$0.0	\$0.0							\$0.0
Year 13								\$0.0	\$0.0							\$0.0
Year 14								\$0.0	\$0.0							\$0.0
Total	\$21.1	\$0.0	\$0.0	\$10.0	\$0.6	\$0.0	\$10.6	\$10.5	\$4.4	\$6.1	\$0.0	\$0.0				\$0.0

## Storage Program - Detail for Surface Storage Planning Studies

### Straw Proposal - Funding Allocation

(\$ in millions)  
October 5, 2004

Program Year	Funding Targets <sup>1</sup>	Available Funding					Total Available	Unmet Needs	Proposed Funding for Unmet Needs					Total Funding Proposed	Remaining Gap	
		State			Federal											
		GF	Prop 13	Prop 50 <sup>2</sup>	Approp. <sup>3</sup>						Local <sup>4</sup>	State <sup>5</sup>				Federal <sup>6</sup>
Upper San Joaquin Storage Investigations - planning																
Year 5	\$1.5			\$0.0	\$0.6		\$0.6	\$0.9	\$0.4	\$0.0						\$0.5
Year 6	\$5.0			\$1.6			\$1.6	\$3.4	\$0.0	\$4.1						-\$0.7
Year 7	\$4.2			\$0.2			\$0.2	\$4.0	\$0.0	\$3.1						\$0.9
Year 8	\$2.0			\$0.2			\$0.2	\$1.8	\$0.9	\$1.4						-\$0.6
Year 9	\$0.3			\$0.1			\$0.1	\$0.2	\$0.1	\$0.2						-\$0.1
Year 10	\$0.2			\$0.0			\$0.0	\$0.2	\$0.1	\$0.1						\$0.0
Year 11							\$0.0	\$0.0								\$0.0
Year 12							\$0.0	\$0.0								\$0.0
Year 13							\$0.0	\$0.0								\$0.0
Year 14							\$0.0	\$0.0								\$0.0
Total	\$13.2	\$0.0	\$0.0	\$2.1	\$0.6	\$0.0	\$2.7	\$10.5	\$1.5	\$9.0	\$0.0	\$0.0				\$0.0
San Luis Reservoir LPIP - planning																
Year 5	\$7.4			\$0.0	\$0.0		\$0.0	\$7.4		\$0.0		\$0.0				\$7.4
Year 6	\$10.0			\$0.0			\$0.0	\$10.0		\$8.7		\$8.7				-\$7.4
Year 7							\$0.0	\$0.0								\$0.0
Year 8							\$0.0	\$0.0								\$0.0
Year 9							\$0.0	\$0.0								\$0.0
Year 10							\$0.0	\$0.0								\$0.0
Year 11							\$0.0	\$0.0								\$0.0
Year 12							\$0.0	\$0.0								\$0.0
Year 13							\$0.0	\$0.0								\$0.0
Year 14							\$0.0	\$0.0								\$0.0
Total	\$17.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$17.4	\$0.0	\$8.7	\$0.0	\$8.7				\$0.0

## Storage Program - Summary of All Surface Storage Planning Studies

### Straw Proposal - Funding Allocation

(\$ in millions)  
October 5, 2004

Program Year	Funding Targets <sup>1</sup>	Available Funding					Total Available	Unmet Needs	Proposed Funding for Unmet Needs					Total Funding Proposed	Remaining Gap	
		State			Federal											
		GF	Prop 13	Prop 50 <sup>2</sup>	Approp. <sup>3</sup>						Local <sup>4</sup>	SWP				CVP
Years 5-9	\$81.5	\$0.0	\$0.0	\$28.8	\$2.4	\$0.0	\$31.2	\$50.3	\$8.4	\$33.1	\$0.0	\$8.7	\$0.0	\$50.2	\$0.1	
Year 5	\$27.2	\$0.0	\$0.0	\$16.3	\$2.4	\$0.0	\$18.7	\$8.5	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	\$8.1	
Year 6	\$32.2	\$0.0	\$0.0	\$10.3	\$0.0	\$0.0	\$10.3	\$21.9	\$0.0	\$20.2	\$0.0	\$8.7	\$0.0	\$28.9	-\$7.0	
Year 7	\$17.3	\$0.0	\$0.0	\$1.7	\$0.0	\$0.0	\$1.7	\$15.6	\$0.0	\$9.1	\$0.0	\$0.0	\$0.0	\$9.1	\$6.5	
Year 8	\$4.2	\$0.0	\$0.0	\$0.3	\$0.0	\$0.0	\$0.3	\$3.9	\$7.8	\$3.3	\$0.0	\$0.0	\$0.0	\$11.1	-\$7.3	
Year 9	\$0.6	\$0.0	\$0.0	\$0.2	\$0.0	\$0.0	\$0.2	\$0.4	\$0.2	\$0.4	\$0.0	\$0.0	\$0.0	\$0.6	-\$0.2	
Years 10-14	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	\$0.2	\$0.3	\$0.0	\$0.0	\$0.0	\$0.5	-\$0.1	
Year 10	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	\$0.2	\$0.3	\$0.0	\$0.0	\$0.0	\$0.5	-\$0.1	
Year 11	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Year 12	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Year 13	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Year 14	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Total, Years 5-14																
	\$81.9	\$0.0	\$0.0	\$28.8	\$2.4	\$0.0	\$31.2	\$50.7	\$8.6	\$33.4	\$0.0	\$8.7	\$0.0	\$50.6	\$0.0	

Notes:

1. Assumes all planning studies currently underway will be completed.
2. Existing Prop 50 funds identified for planning studies.
3. Currently in proposed 2005 federal budget.
4. No local funding currently identified for planning.
5. Assumes Year 1-4 funding pattern continues. Note that the state funding is unlikely to occur until Year 8 when new statewide bond funding is available. This will result in significant delays in completing the studies, particularly those with significant state participation. Some planning costs may be reimbursed by water users and other cost share for funding gap

### Storage Program - Planning Studies Percent Allocation from Years 5-14

State	Federal	Water User			Local	Unallocated Gap
		SWP	CVP	Other Water Users		
45.6%	43.7%	0.0%	0.0%	10.6%	0.0%	0.0%
				10.6%		



# Storage Program - Oversight and Coordination Straw Proposal - Funding Allocation

(\$ in millions)  
October 5, 2004

Program Year	Funding Targets <sup>1</sup>	Available Funding					Total Available	Unmet Needs	Proposed Funding for Unmet Needs					Total Funding Proposed	Remaining Gap
		State			Federal										
		GF	Prop 13	Prop 50 <sup>2</sup>	Approp. <sup>3</sup>										
						Local <sup>4</sup>			State <sup>5</sup>	Federal <sup>6</sup>	SWP	CVP	Local		
Years 5-9	\$3.4	\$0.3	\$0.0	\$2.6	\$0.1	\$0.0	\$3.0	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4
Year 5	\$1.8	\$0.3		\$1.4	\$0.1		\$1.8	\$0.0	\$0.0	\$0.0				\$0.0	\$0.0
Year 6	\$1.4			\$1.2			\$1.2	\$0.2	\$0.0	\$0.0				\$0.0	\$0.2
Year 7	\$0.3			\$0.0			\$0.0	\$0.3	\$0.0	\$0.0				\$0.0	\$0.3
Year 8	\$0.3			\$0.0			\$0.0	\$0.3	\$0.3	\$0.0				\$0.3	\$0.0
Year 9	\$0.3			\$0.0			\$0.0	\$0.3	\$0.3	\$0.0				\$0.3	\$0.0
Years 10-14	\$1.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.4	\$1.4	\$0.0	\$0.0	\$0.0	\$0.0	\$1.4	\$0.0
Year 10	\$0.3			\$0.0			\$0.0	\$0.3	\$0.3	\$0.0				\$0.3	\$0.0
Year 11	\$0.3			\$0.0			\$0.0	\$0.3	\$0.3	\$0.0				\$0.3	\$0.0
Year 12	\$0.3			\$0.0			\$0.0	\$0.3	\$0.3	\$0.0				\$0.3	\$0.0
Year 13	\$0.3			\$0.0			\$0.0	\$0.3	\$0.3	\$0.0				\$0.3	\$0.0
Year 14	\$0.3			\$0.0			\$0.0	\$0.3	\$0.3	\$0.0				\$0.3	\$0.0
Total	\$6.7	\$0.3	\$0.0	\$2.6	\$0.1	\$0.0	\$3.0	\$3.7	\$3.3	\$0.0	\$0.0	\$0.0	\$0.0	\$3.3	\$0.4

## Notes:

1. Assumes all planning studies currently underway will be completed.
2. Existing Prop 50 funds identified for Oversight and Coordination.
3. Assumes small portion of planning appropriation in proposed 2005 federal budget.
4. No local funding currently identified for Oversight and Coordination.
5. Assumes state responsibility for future costs for Oversight and Coordination. State funding from new bonds not available until Year 8, resulting in funding gap in Years 6 and 7.
6. Positive funding gap due to delay in state funding availability.

# Conveyance

## **Background and Funding History**

The conveyance program includes planning and construction for a number of projects (see table at the end of this paper). This paper and the 10-year finance plan are focused on construction of a few projects, and planning for others. In addition, the conveyance program is considering construction of other projects but at this point it is premature to develop cost allocations until more information on costs and benefits is available. For these Potential Capital Projects, a future timeframe and check in point, and a process for developing cost allocations when it is timely, will be needed. These potential capital projects include: Clifton Court Fish Screens, Tracy Fish Test Facility, Through Delta Facility, N. Delta Flood Control & Ecosystem Restoration Improvement Program, and Lower SJ Flood/Ecosystem Improvements. More information regarding these potential capital projects can be found below, in the Potential Capital Projects section of this straw proposal.

Between 2000 and 2004, funding for the Conveyance Program has totaled approximately \$110 million, broken down as follows:

- \$46 million state – General Fund (\$7.6 million), Prop 13 (\$37.6 million), and Prop 50 (\$0.6 million),
- \$11 million federal -- water & related resources appropriations,
- \$46 million State Water Project contractors, and
- \$7 million Central Valley Project contractors (through CVPIA restoration funds).

## **Proposed 10-Year Finance Plan**

***Funding Targets and Proposed Allocations:*** The funding targets, unmet needs, and straw proposals for funding the unmet needs are organized below for each of the projects and planning studies contained in the conveyance program.

1. ***Permanent Operable Barriers/8,500 cfs:*** The preferred alternative of the South Delta Improvements Program (SDIP) includes four permanent operable barriers and increasing the pumping limit at the SWP Banks pumping plant to 8,500 cfs. The relative benefits of the permanent operable barriers/8,500 cfs are uncertain at this time, but benefits will generally include water supply improvements for SWP and CVP export water contractors, water quality improvements for the central Delta, fish protection, and the EWA from potential additional water supplies that current modeling studies show may be available for the EWA during the July-September period, at a lower cost.

### ***Funding Targets***

Since 2000, funding for planning has been almost entirely from State Water Contractors (\$27 million). The remaining cost to complete the permanent operable barriers and 8,500 cfs is \$97.1 million, which includes:

- Planning (\$13 million) -- \$8 million is available from State Water Contractors, leaving \$5 million unmet; and
- Construction (\$84.1 million) for the four permanent operable barriers. Funding is available from Prop 13 (\$53.2 million), leaving \$30.9 million still unmet.

***Proposed Allocation:***

The proposed allocation for funding the unmet needs for the permanent operable barriers is to fund construction of the barriers with available funds (Federal appropriations, Prop 13, and Prop 50), and planning with State Water Project funds. As describe in more detail below, the table at the end of this document assigns all of the unmet needs for construction to Prop 50, due to the uncertainty of federal funding and additional Prop 13 funding (beyond the \$53.2 million already allocated for this project).

The primary beneficiaries of the permanent operable barriers are the SWP and CVP exporters (due to increased water supply capacity and pumping), Central Delta Water Agency (due to water quality benefits, the public (due to fish benefits), and the EWA (due to increased water supply). However, since public funding has been made available for this project, there is general consensus among stakeholders and agency representatives to first use bond funds that are available and specified for this project (Prop 13), plus federal appropriations that may be made available in the future, and then use bond funds that have the flexibility and are appropriate to be spent on this type of project (Prop 50). Given that sufficient public funds are available for construction of the barriers, it appears that construction of the permanent operable barriers may be proposed using only public funds, which would more than cover the public benefits of the permanent operable barriers. Water user contributions may only be needed for planning. Based on the both the benefits of, and available funding for, the permanent operable barriers, the following strategy is proposed:

The proposed allocation approach for construction of the permanent operable barriers is to fund the remaining unmet needs (\$30.9 million) as follows:

- (1) Federal Funds – existing law (CVPIA) includes a federal cost share for the permanent barriers. Three of the four barriers are included as a requirement in the CVPIA, although federal funding (taxpayer and CVP contractor) for planning for this project has been minimal. If federal funds are appropriated in time for construction of the permanent barriers so that the construction schedule is not delayed, then these funds should be used to help fund the remaining unmet needs for construction. However, any federal taxpayer share for this project is likely to not be available until Year 7, given the existing federal budget process. If state funding pays for a larger up-front share than required under CVPIA, then The Bureau of Reclamation (Reclamation) should apply a credit to the state for other state obligations under CVPIA.
- (2) State Prop 13 – \$53.2 million from Prop 13 is already available for construction of the barriers, but it may be possible to allocate more from Chapter 9, Article 3 that isn't needed for other purposes. If an evaluation by the agencies regarding the use of Prop 13, Chapter 9, Article 3 (expected by the end of October) determines that a portion of that section of Prop 13 is no longer needed, and is allowed to be allocated for another purpose within that section of the bond, then additional Prop 13 should be used to help cover the unmet needs.
- (3) State Prop 50 – To the extent federal funds and Prop 13 aren't available, fund the remainder with Prop 50, Chapter 7(b), which is eligible to be used for conveyance facilities described in Prop 13, Chapter 9, Article 3, which includes the permanent operable barriers. To the extent Prop 50, Chapter 7(b) isn't available, Prop 50, Chapter 7(d) may also be appropriate for the permanent barriers, if available.

Note: because federal funding and additional Prop 13 funding is uncertain at this time, the table at the end of this proposal paper allocates all of the remaining unmet needs to Prop 50. If federal funds or additional Prop 13 is made available, this will reduce the amount needed from Prop 50.

The proposed allocation approach for planning is to fund the remaining unmet needs (~\$5 million) as follows:

- (1) Because SWP and CVP water users benefit from the water supply increases that the permanent operable barriers and 8,500 cfs would provide, and construction is fully funded with public funds, it seems appropriate for export water users (SWP/CVP) to pay for the remaining planning costs.
- (2) Given the uncertainty of CVP funding through the federal budget process, the high priority of this project and the need for this funding in the short-term, plus the relative uncertainty associated with a CVP share for this project (taking into account their separate trade-offs with SWP through the CVP/SWP Project Integration Proposal), it is proposed that the SWP fund the remaining \$5 million for planning.

## **2. *Interim South Delta Actions:***

### ***Funding targets***

Current funding targets for Interim South Delta Actions (including dredging and operation of the 4 temporary barriers) are \$24.7 million over 4 years, which assumes that permanent barriers would be constructed by the end of 2007. Reclamation and DWR developed a cost share strategy in 1992 based on the authority that CVPIA gives the federal government for the permanent barriers, which allocates the costs of the Grantline barrier 100% to the SWP, and the other three barriers are split 25% SWP / 75% Federal (split 37.5% non-reimbursable, and 37.5% reimbursable CVP). However, it was originally assumed that the temporary barriers were necessary for getting design information for the permanent barriers, thus they were assumed to be part of the cost of the permanent barriers. The extended period of operation of the temporary barriers may present an uncertainty to this rationale for the Federal government/CVP and reduces their interest in future funding for the temporary barriers. However, even if CVP intended to fund this activity, CVP contributions are appropriated through the federal budget process, causing delays in the ability to receive CVP funding for the project. To date, the CVP has not contributed significant funding for the temporary barriers, while the SWP has essentially fully funded them.

### ***Proposed Allocation***

The temporary barriers have generally the same benefits as the permanent barriers, which provide water supply reliability benefits to the SWP and CVP contractors. However, the uncertainty surrounding CVP funding in the short-term requires an alternate strategy for applying contributions from both SWP and CVP contractors. Given the SWP and CVP benefits, but CVP funding uncertainty, the following strategy for the interim South Delta actions is proposed:

- SWP contractors will continue to pay for the interim South Delta actions. SWP and CVP contractors, with involvement from Reclamation and DWR, will negotiate a cost sharing arrangement. Any CVP reimbursement to the SWP would likely be through a wheeling fee.

Since the amount and timing of CVP funding for the interim South Delta actions is uncertain, the table at the end of this proposal paper allocates all of the costs to the SWP.

3. ***Delta Mendota Canal/California Aqueduct Intertie:*** The conveyance capacity of the Delta Mendota Canal (DMC) currently limits the full permitted capacity of the Tracy Pumping Plant to less than its full capacity of 4,600 cfs during non-irrigation periods. By creating an intertie between the DMC and the California Aqueduct, about 400 cfs could be moved from the DMC to the California Aqueduct, which would allow Tracy pumping at full capacity.

#### ***Funding Target***

Current estimates to complete the intertie are \$26.7 million – no bond funds or other funding is available. Another \$3 million associated with this project to study the feasibility of increasing capacity through enlargement could be added to the costs if federal authorization passes.

#### ***Proposed Funding Allocation***

The Draft Finance Options Report suggests that the benefits are to CVP water users, given the increase in pumping for CVP water contractors. However, CVP contractors feel that there will be some benefits to the SWP as well, though they acknowledge not as great as the benefits would be to the CVP. Some CVP water contractors have said that some federal money has been allocated for this project (approximately \$1 million per year), and that they hope another \$2 million will be appropriated. South of Delta CVP contractors have agreed to fund the balance of the costs for this project.

The proposed allocation is to fund the balance of the costs for this project from South of Delta CVP contractors. However, even though the proposed federal Senate authorization bill for CALFED includes this intertie, it does not specifically identify funding for this project as either reimbursable or non-reimbursable. To the extent federal appropriations are allocated for this project, and Reclamation finds that there is a federal interest and makes a portion of the funding non-reimbursable, this may ultimately reduce the CVP share. Because the amount of federal non-reimbursable funding that may be appropriated in the future is unknown, the table at the end of this proposal paper allocates all of the funding to the CVP contractors.

4. ***Planning Studies:*** There are numerous planning studies underway for the Conveyance Program, many of which have unmet funding needs. For many of these projects under study, the project benefits are expected to be provided to the CVP or SWP contractors primarily. For those studies where the allocation of benefits is known—it is appropriate to allocate the planning costs to those beneficiaries. Otherwise the costs may be best borne by state and federal taxpayer funding for planning until beneficiaries are more clearly identified. Planning studies that have federal feasibility study authority could be funded up to 50% by the federal government. If unmet needs for planning are sought from state/federal funds there is a higher likelihood of significant delays because either state and federal funding is difficult to obtain or the timing associated with the annual budget cycle will result in a 1-2 year delay if requests are initiated in the next few months. However, if funding from water users and local participants is provided, funding is more likely to be available sooner, which could accelerate completion of studies.

a) **Tracy Fish Test Facility** – This study involves research regarding fish protection measures that may benefit both the CVP and SWP. However, beneficiaries are uncertain, and the future status and need for this project is being reviewed by the South Delta Fish Forum and a recommendation to the CALFED agencies will be made by the end of 2004.

At this time, no additional funding or allocation is proposed for the Tracy Fish Test Facility, awaiting the recommendation from the South Delta Fish Forum.

- Note: ~\$20 million from Prop 13 was provided to Reclamation by DWR for construction of the Tracy Fish Test Facility, based on a cost sharing arrangement of a 25% State cost share, based on CVPIA (3406(b)(4)). Since then, the scope of this project has changed, and the cost estimates have dropped significantly. For now, this funding will remain at Reclamation, since no other plan for those funds currently exists. If the TFTF does not go forward, or if the costs are lower than originally anticipated and the State interest is reduced, and there is a need identified for another project in the future that is appropriate to be funded by this section of Prop 13, then this funding will be directed to another project.

b) **Lower San Joaquin River Flood Control & Ecosystem Improvements** – This project could improve flood management and ecosystem restoration in the Lower San Joaquin River. The specific beneficiaries are not known at this time, but beneficiaries are expected to include the public from ecosystem improvements and local landowners from flood control. Export contractors are not expected to benefit significantly. In addition, several export contractors have agreed that this project is a low priority.

***Funding target***

Current cost estimates to complete planning for this project are \$11.6 million over 4 years, beginning with Year 7. No funding is currently available for Lower San Joaquin River Flood Control & Ecosystem Improvements.

***Proposed Funding allocation:***

At this time, a funding allocation of 50/50 State (General Fund or future bonds) and Federal (non-reimbursable) is proposed. Because the project benefits and beneficiaries have not been identified, it seems reasonable to propose an allocation of all public funding for the first few years of planning.

Note: Federal funding is limited to existing authorities for this project at either Reclamation or the U.S. Army Corps of Engineers (USACE). Reclamation has indicated that federal funding for evaluations would be limited to \$0.1 to \$0.2 million. CBDA staff is working with USACE to determine if similar limitations would occur with existing USACE authorities. In addition, federal funding is subject to future appropriations and availability of funds. To the extent that federal funding is not available for Lower San Joaquin River Flood Control & Ecosystem Improvements, the funding gap would be covered by additional State funding.

c) **Delta Cross Channel Re-Operation** – This study involves investigations of re-operating the Cross-Channel gates and studying the feasibility of modifying some slough entrances to

improve water quality in the Delta without negatively impacting fish. Funding to date has been primarily from Prop 13 (~\$4 million for fish facility improvements in the Delta) and SWP (~\$1 million).

***Funding target***

\$1.8 million is needed in Year 5, with \$1.1 available from Prop 13 and SWP, leaving a minor remaining unmet need in the current year of \$0.7 million. Several CVP and SWP contractors have expressed that this is a high priority project, and some CVP contractors have expressed a willingness to pay for this project.

***Proposed allocation:***

The straw proposal for the Delta Cross Channel Re-Operation is to fund the remaining unmet needs (\$0.7 million) with CVP funding. This project has benefits to both water exporters and fish. However, Prop 13 and SWP have funded this project to date, without CVP contributions. Because CVP exporters also benefit but have not contributed, it is proposed to fund the balance of the remaining unmet needs with Federal reimbursable appropriations (Federal appropriations that would be fully reimbursed by CVP export contractors).

***d) Through Delta Facility –***

***Funding target***

The remaining planning for the Through Delta Facility is estimated to cost \$18.7 million. Planning for the Through Delta Facility would investigate the feasibility for a diversion from the Sacramento River near Hood, in case the goals for continuous water quality improvements are not met by other means. \$5.7 million is available for current research. \$5 million is available from the State (\$4.9 million from Prop 13 for fish facility improvements in the Delta and \$0.1 million from General Fund) and \$0.7 million is available from State Water Contractors, leaving a remaining unmet need of \$13 million.

Current research and evaluations of alternatives are funded and underway, and recommendations are expected by the end of 2006. There is general consensus among several CVP and SWP contractors that funding for these existing research and evaluations is a high priority, to get to a decision on how to proceed with this project. A need for funding beyond that is viewed as less certain until more information is gathered from the existing research.

***Proposed allocation***

There are no unmet needs for the current research and evaluations that are a high priority. It is proposed that no further funding will be allocated for this project until current evaluations are complete and more information is available to determine cost sharing arrangements and future funding targets for this project.

5. ***Oversight, Coordination, and Science*** – \$4.6 million is needed over 10 years, and \$4.6 million is available, leaving no unmet needs.

## **Potential Capital Projects**

The conveyance program is considering construction of several projects that have not been included in this straw proposal because it is premature at this point to develop cost allocations until more information on costs and benefits is available. For these Potential Capital Projects, a future timeframe and check in point, and a process for developing cost allocations when it is timely, will be needed. These potential capital projects include:

- Clifton Court Fish Screens construction (~\$650 million)
- Tracy Fish Test Facility construction (~\$40 million)
- Through Delta Facility construction (~\$450 million)
- North Delta Flood Control & Ecosystem Restoration Improvement Program (~\$180 million)
- Lower San Joaquin River Flood Control & Ecosystem Improvements (~\$435 million)

More information regarding these potential capital projects, including a description and status for each project, will be provided in the next draft of this straw proposal..

## **Unresolved Issues**

***Available Public Funds:*** Both Propositions 13 and 50 allocate funds for the CALFED conveyance program, although the activities authorized do not include all conveyance activities, but focus on South Delta improvements and Delta fish protection. A total of approximately \$250 million was allocated for the conveyance activities from both bonds. In addition, to the extent that funding allocated for some activities (Section 79196.5(b), (d), and (f)) is not needed, those funds can be redirected to any of the other activities in that Chapter/section of the bond (Section 79196.5(a-f)). A plan will be developed with agency and stakeholder involvement, to determine how to allocate the Prop 13 and Prop 50 funding. This could alter some of the proposals in this draft.

***Planning -- South Delta Fish Protection Measure.*** The South Delta Fish Protection Measures include planning associated with Clifton Court Fish Screens (primarily for the South Delta Hydrodynamic Investigations and an analysis of the short-circuit alternative) and the fish collection, handling, transportation, and release (CHTR) processes study. Benefits are expected to primarily accrue to SWP and CVP contractors, although several export contractors have argued that the hydrodynamic investigations will improve base knowledge of how the system functions, and has broad public benefits.

The current cost estimates to complete the studies are \$7.2 million. (\$4.2 million is for the South Delta hydrodynamic investigations, \$2.3 million is for the planning and pre-feasibility of a short circuit alternative for the Clifton Court Fish Screens, and \$0.8 million is for the CHTR study)

- (1) South Delta hydrodynamic investigations, which may provide water quality as well as fish protection benefits -- \$1.3 million is available from Prop 13 for fish facility improvements in the Delta, leaving an unmet need of \$2.9 million. Reclamation has indicated that some federal funding (approximately \$0.3 million) may be available in federal FY 2005 funds, and there is general consensus among SWP and CVP contractors and the agencies that this is a high priority study.



A funding proposal for the hydrodynamic investigations study is still undetermined, but there appear to be public, SWP, and CVP benefits from this project. As a placeholder, the table at the end of this straw proposal assumes the unmet needs will be funded through federal (\$0.3 million) funds, Prop 13 (\$2.1 million), and Prop 50 (\$0.5 million). The following strategy is suggested for discussion:

- The Year 5 budget includes \$1.1 million in Prop 13 for a debris study that DWR no longer needs for this purpose. This funding is available in the budget for Year 5, and may be able to be shifted to help fund some of the immediate unmet needs for the hydrodynamic investigations.
- If federal funding is appropriated for FY 2005 for the hydrodynamic studies, this could help fund the unmet needs, and should be used.
- Available funding (Prop 13 & Prop 50) from the CALFED Science program will be reviewed.
- Any remaining unmet needs not covered by federal, Prop 13, and Prop 50 would be funded by SWP and CVP contractors, with the cost share between them to be determined.

(2) Planning and pre-feasibility of a short circuit alternative for the Clifton Court Fish Screens – \$1.5 million is available in Year 5 from SWP funds, and \$0.8 million is available from Prop 13 in Year 6, leaving no unmet needs.

(3) CHTR study (fish collection, handling, transportation, and release) -- \$0.1 million is available from the General Fund, \$0.5 million from Prop 13, and \$0.2 million from Prop 50, leaving no unmet needs.

**Planning-- Clifton Court Forebay/Tracy P.P. Intertie.** This study would look at the potential operational benefits to both the CVP and SWP from an intertie between the Clifton Court Forebay and the Tracy pumping plant. Current cost estimates are \$2.0 million, with no available funding. Some export water users have suggested that the scope of this project needs further definition, but several CVP and SWP exporters have generally agreed that this appears to be something they benefit from and should help fund. However, several CVP and SWP exporters have also pointed out that there may also be fish benefits from this project, and that a cost sharing arrangement that is strictly from water users would not take this into account.

For now, the table at the end of this straw proposal assumes this project will be funded by SWP and CVP contractors, split 50/50. The possibility of using Prop 13 for the fish benefits associated with this project is being reviewed. To the extent the Department of Water Resources, California Bay-Delta Authority, and water users agree that a portion of Prop 13 is appropriate for this project, then Prop 13 funding may be used. Any remaining balance would be funded by SWP and CVP contractors, through cost sharing arrangements agreed to by them. Until a decision is made regarding the possible use of Prop 13 and any cost sharing arrangements between the SWP and CVP are known, the table at the end of this proposal paper includes an example allocation for this project of 50% SWP/50% CVP

**Conveyance Program**  
**Straw Proposal - Funding Allocation <sup>1</sup>**  
**(\$ in millions)**  
**October 5, 2004**

Project	Funding Targets	Available Funding				Total Available	Unmet Needs	Proposed Funding for Unmet Needs						Total Funding Proposed	Remaining Gaps
		State			Water User			State			Fed Non-Re-imbursable <sup>6</sup>	Water User			
		GF	Prop 13	Prop 50				GF/Future Bonds	Prop 13	Prop 50		SWP	CVP		
Permanent Operable Barriers/ 8500 cfs	\$97.1		\$53.2		\$8.0	\$61.2	\$35.9	\$0.0	\$0.0	\$30.9	\$0.0	\$5.0	\$0.0	\$35.9	\$0.0
Planning	\$13.0				\$8.0	\$8.0	\$5.0					\$5.0		\$5.0	\$0.0
Construction (includes dredging & mitigation)	\$84.1		\$53.2			\$53.2	\$30.9			\$30.9				\$30.9	\$0.0
Delta Mendota Canal/California Aqueduct Intertie <sup>2</sup>	\$26.7					\$0.0	\$26.7						\$26.7	\$26.7	\$0.0
Interim South Delta Actions	\$24.7				\$7.5	\$7.5	\$17.2					\$17.2		\$17.2	\$0.0
Planning Studies															
South Delta Fish Protection Measures <sup>3</sup>	\$7.2		\$2.6	\$0.2	\$1.5	\$4.3	\$2.9		\$2.1	\$0.5	\$0.3			\$2.9	\$0.0
Tracy Fish Test Facility <sup>4</sup>	\$0.1	\$0.1				\$0.1	\$0.0							\$0.0	\$0.0
Lower San Joaquin River Flood Control & Ecosystem	\$11.6					\$0.0	\$11.6	\$5.8			\$5.8			\$11.6	\$0.0
Delta Cross-Channel Re-Through Delta Facility <sup>5</sup>	\$1.8		\$0.6		\$0.5	\$1.1	\$0.7						\$0.7	\$0.7	\$0.0
Through Delta Facility <sup>5</sup>	\$18.7	\$0.1	\$4.9		\$0.7	\$5.7	\$13.0							\$0.0	\$13.0
N. Delta Flood Control & Ecosystem Restoration	\$0.5	\$0.5				\$0.5	\$0.0							\$0.0	\$0.0
Clifton Court Forebay/Tracy P.P. Intertie	\$2.0					\$0.0	\$2.0					\$1.0	\$1.0	\$2.0	\$0.0
Oversight, Coordination, & Science	\$4.6	\$3.6			\$1.0	\$4.6	\$0.0							\$0.0	\$0.0
Total	\$195.0	\$4.3	\$61.3	\$0.2	\$19.2	\$85.0	\$110.0	\$5.8	\$2.1	\$31.4	\$6.1	\$23.2	\$28.4	\$97.0	\$13.0

Notes:

1. Includes funding targets and unmet needs for Years 5-14 of the CALFED Program.

2. Federal funding (possibly \$1-3 million) may be available. To the extent federal funding is available, it would reduce the CVP share.

3. Federal funding, if appropriated in FY 2005, could reduce the need for bond funds. This table assumed \$0.3 million would be available. Additional Prop 13 & Prop 50 Science funding to fill the unmet needs for South Delta Fish Protection Measures would be evaluated -- this table assumed Prop 13 & Prop 50 funds cover the remaining unmet needs. To the extent there are remaining unmet needs after federal funds and bond funding is applied, the balance would come from SWP/CVP.

4. No additional funding for the TFTF is proposed at this time, pending a decision from the South Delta Fish Forum on this project.

5. Additional funding may be needed for planning (up to \$13 million), depending on the outcome of the existing evaluations, and decisions expected in 2006.

6. Federal estimates are subject to future appropriations and availability of funds.

Conveyance Program Percent Allocation Beginning Year 5				
State	Federal	Water User (via contractor charges)		Unallocated from Remaining Funding Gaps
		SWP	CVP	
53.9%	3.1%	21.7%	14.6%	6.7%
		36.3%		

# **CALFED Science Program**

## **Background and Funding History**

The CALFED Science Program is composed of the California Bay-Delta Authority (CBDA) Science program and the Interagency Ecological Program (IEP).

The CBDA Science program coordinates with each implementing agency and program element to address multiple science benefits across the CALFED Program as well as assists implementing agencies in planning science activities within the program elements. Each program element is responsible for implementing the best possible science available to address critical issues and gaps in information within the program element.

The CALFED Science program builds on the foundation of long-term investment in mandated monitoring programs established prior to the ROD, including the IEP. As an important component of the CALFED Science Program, the IEP for the San Francisco Bay / Sacramento-San Joaquin Estuary consists of nine member agencies, three State (Department of Water Resources (DWR), Department of Fish and Game, and State Water Resources Control Board (SWRCB), and six Federal (Fish and Wildlife Service, Bureau of Reclamation (Reclamation), Geological Survey, Army Corps of Engineers, National Marine Fisheries Service, and Environmental Protection Agency). These nine program partners work together to develop a better understanding of the estuary's ecology and the effects of the State Water Project (SWP) and Federal Central Valley Project (CVP) operations on the physical, chemical, and biological conditions of the San Francisco Bay-Delta estuary. The IEP is considered part of the CALFED Science Program because of its focus on Delta fisheries monitoring, although the Science Program coordinates with all the other existing monitoring as well.

During the first four years the CBDA Science Program and IEP's funding together has averaged about \$22 million per year (ranging from a low of \$15 million to a high of \$34 million).

- For the CBDA Science program – the State's General Fund and Proposition 50 have been the primary sources during the first four years. These two state sources have contributed about 90% of the program's budget, with the remaining 10% coming from the federal government. During the initial four years of activity, state and federal combined funding has averaged about \$10 million per year (ranging from a low of \$3 million to a high of \$22 million).
- For the IEP — The IEP funding is established by permit conditions adopted by the SWRCB for the State Water Project and Central Valley Project. In total, the IEP has received about \$11.6 million annually (ranging from a low of \$8 million to a high of \$15 million) during the first four years of the CALFED Program. During the past four years, federal costs for IEP have decreased, ranging from \$4-\$7 million per year. The state share has declined slightly but otherwise has remained consistent. The State Water Project (SWP) users have significantly increased their contribution in the last year years of the program. The IEP is substantially funded through SWP water user funding and federal nonreimbursable funding although CVP contractors question the federal accounting and indicates that IEP has some reimbursable funds from CVP contractors. Reclamation reports that some Central Valley Project Improvement Act Restoration Fund (CVPIA RF) contributions about \$700,000 per year however, are for IEP related activities and not directed at IEP in particular. Therefore, the CVP water users have not contributed to IEP in the past four years.

## **Proposed 10-Year Finance Plan**

### ***Funding targets***

The total proposed CALFED science target is \$44 million per year. The proposed funding target for the CBDA science program is approximately \$30 million per year and the IEP proposed target is approximately \$14 million. The CALFED Science Program Budget Summary and Justification (attached) provides a detailed description for the proposed funding target.

Water users generally support an increase in Science funding however, they are unclear if the increase proposed is appropriate. It is generally understood that Science is a long-term investment that is expensive but necessary to answer questions regarding performance and long-term benefits but water users are hesitant to support a \$44million target for CALFED Science without more information. Water users have asked for some time to review the details of the CALFED Science program to review the activities of CBDA Science and IEP.

### ***Available funding***

The CBDA Science program currently has approximately \$35 million (Propositions 50 and 13) available to be used in the near term. This leaves a funding gap of approximately \$265 million over the 10 years. Available funding for IEP is discussed below under Outstanding Issues

### ***Proposed Funding Allocation***

*CBDA Proposed Allocation.* CBDA Science activities cross program element boundaries and benefit multiple objectives within CALFED as well as increase the public understanding of science issues. The CBDA Science activities answer broad science questions that benefit the public. These public benefits support a funding allocation from public funds—which is proposed to be shared equally at a 50% state and 50% federal share (\$15 million state and \$15 million federal annually). CBDA Science program attempts to integrate world-class science and peer review into every aspect of the CALFED Program. CALFED is developing the best scientific information possible to guide decisions and evaluate actions that are critical to its success. To that end, the CBDA Science program provides information to guide decision makers on both on a statewide and national level. Since federal and state taxpayers both benefit from Science, a 50/50 public share is proposed.

Federal funding is not anticipated to be available until Year 6. It is unclear how much federal money will be available. It is anticipated that the appropriation will be requested from the USGS. Historically, Science has not been significantly funded by federal funding and the federal share of requested funding is increasing significantly. However, Science provides such broad public benefits that if federal funding were not available, state funding may increase to cover the gap. Future State bonds funds or annual State appropriations for science are not expected to be available until Year 8. Therefore, in the near-term the science program will be under-funded (see attached Table). Current state bond funding will only be available to fund part of the program's target through year seven, creating a funding gap of approximately \$25 million in the near term.

Other science programs exist in California. It may be possible to coordinate these programs to meet CALFED goals and objectives to provide a broader base for science funding. If these programs coordinate with the CBDA Science program and can serve a dual purposes for both the specific program and CALFED objectives, it may cover some of the near term gap.

*IEP Proposed Allocation.* Future funding allocation for IEP is proposed to continue as funding has been allocated in past years. However, because of fluctuating contributions, the allocations have also fluctuated. Additional information is needed to develop a future funding allocation with dollars to meet the funding target of \$14 million/yr. IEP funding allocation is further discussed below under Outstanding Issues

### **Periodic Review**

The CBDA staff proposes a periodic review of the CBDA Science program and IEP, using established program performance measures to assess the status of the program and reevaluate the proposed funding target every five years by the Independent Science Board and California Bay-Delta Authority. An annual review of science activities and accounting of science spending within the CALFED program is performed through the program plan process for each program element.

### **Unresolved Issues**

#### **IEP Allocation.**

Discussions with water users and IEP agencies suggested a preference for keeping IEP's present funding formula and keep it distinct from CBDA Science. This view was driven primarily by water users' perception that IEP activities provide a direct benefit. The funding for IEP costs has been distributed among (1) the state government, (2) the federal government, (3) SWP water users, (4) CVP water users, and (5) recreational users. However, funding from these sources has fluctuated over recent years.

- The IEP Coordinators recommend using the following percentages when showing IEP funding sources: Federal 43%, State 10%, SWP 42%, Recreational users 4%, and Local 1%.

These numbers are based on the average from the 2003-2004 period. This period was chosen because earlier years included CVPIA contributions that no longer are available to IEP. It does not include 2005 because the 2005 budget has yet to be finalized. Authority staff is working with the IEP agencies and stakeholders to discuss the details of this proposed allocation. Stakeholders and agencies plan to meet to review IEP activities and assess the proposed allocation, and develop a proposed allocation for the November Finance Plan

#### **IEP "Plus" – Performance Evaluation and Monitoring Program.**

Another outstanding issue is if or how IEP will implement and fund the IEP "Plus" – Performance Evaluation and Monitoring Program described in the Delta Improvements Package (DIP). The DIP Implementation Plan (page 8-9) directed IEP to work with other agencies to design and implement a Performance Evaluation and Monitoring Program. This program (Performance Evaluation and Monitoring) is expected to evaluate the water quality and biological resource effects of the SWP, CVP, and the Delta activities described in the Delta Improvements Package. This program will include, at a minimum, performance measures, conceptual models, adaptive management strategies, data handling and storage protocols, expected products and outcomes, regular reporting, and an independent review of existing monitoring programs. IEP member agencies are unsure when the Performance Evaluation and Monitoring program will be online. The best estimate of costs at this time is a range between \$5–\$10 million per year but there is great uncertainty about what level of funding will be actually needed to maintain monitoring and performance evaluation activities generated by the DIP and how those costs will be allocated and supported among the member agencies. Stakeholders and agencies plan to review the proposed activities of IEP plus.

CALFED Science Program Straw Proposal - Funding Allocation (\$ in millions) October 5, 2004															
Program Year	Funding Targets	Available Funding						Total Available	Unmet Needs	Proposed Funding for Unmet Needs				Total Funding Proposed	Remaining Gap
		State			Federal	Water User				State		Water User			
		Prop 13	Prop 50 <sup>1</sup>	Dedicated Stamp Fund <sup>2</sup>	Approps.	SWP	CVPIA RF <sup>3</sup>			Bond <sup>4</sup>		SWP	CVPIA RF		
CBDA Science Program															
Year 5	\$30.0	\$2.0	\$25.9		\$0.8			\$28.7	\$1.3					\$0.0	\$1.3
Year 6	\$30.0		\$7.1					\$7.1	\$22.9		\$15.0			\$15.0	\$7.9
Year 7	\$30.0							\$0.0	\$30.0		\$15.0			\$15.0	\$15.0
Year 8	\$30.0							\$0.0	\$30.0	\$15.0	\$15.0			\$30.0	\$0.0
Year 9	\$30.0							\$0.0	\$30.0	\$15.0	\$15.0			\$30.0	\$0.0
Year 10	\$30.0							\$0.0	\$30.0	\$15.0	\$15.0			\$30.0	\$0.0
Year 11	\$30.0							\$0.0	\$30.0	\$15.0	\$15.0			\$30.0	\$0.0
Year 12	\$30.0							\$0.0	\$30.0	\$15.0	\$15.0			\$30.0	\$0.0
Year 13	\$30.0							\$0.0	\$30.0	\$15.0	\$15.0			\$30.0	\$0.0
Year 14	\$30.0							\$0.0	\$30.0	\$15.0	\$15.0			\$30.0	\$0.0
Subtotal CBDA Science	\$300.0	\$2.0	\$33.0	\$0.0	\$0.8	\$0.0	\$0.0	\$35.8	\$264.2	\$105.0	\$135.0	\$0.0	\$0.0	\$240.0	\$24.2
IEP <sup>5</sup>															
Year 5	\$14.0		\$0.3	\$0.8	\$4.0	\$6.2	\$0.2	\$11.5	\$2.5					\$0.0	\$2.5
Year 6	\$14.0		\$0.3	\$0.8	\$4.0	\$6.2	\$0.2	\$11.5	\$2.5					\$0.0	\$2.5
Year 7	\$14.0							\$0.0	\$14.0					\$0.0	\$14.0
Year 8	\$14.0							\$0.0	\$14.0					\$0.0	\$14.0
Year 9	\$14.0							\$0.0	\$14.0					\$0.0	\$14.0
Year 10	\$14.0							\$0.0	\$14.0					\$0.0	\$14.0
Year 11	\$14.0							\$0.0	\$14.0					\$0.0	\$14.0
Year 12	\$14.0							\$0.0	\$14.0					\$0.0	\$14.0
Year 13	\$14.0							\$0.0	\$14.0					\$0.0	\$14.0
Year 14	\$14.0							\$0.0	\$14.0					\$0.0	\$14.0
Subtotal IEP	\$140.0	\$0.0	\$0.6	\$1.5	\$7.9	\$12.4	\$0.4	\$22.9	\$117.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$117.1
CALFED Science Program															
Year 5	\$44.0	\$2.0	\$26.2	\$0.8	\$4.8	\$6.2	\$0.2	\$40.2	\$3.8					\$0.0	\$3.8
Year 6	\$44.0		\$7.4	\$0.8	\$4.0	\$6.2	\$0.2	\$18.6	\$25.4		\$15.0			\$15.0	\$10.4
Year 7	\$44.0							\$0.0	\$44.0		\$15.0			\$15.0	\$29.0
Year 8	\$44.0							\$0.0	\$44.0	\$15.0	\$15.0			\$30.0	\$14.0
Year 9	\$44.0							\$0.0	\$44.0	\$15.0	\$15.0			\$30.0	\$14.0
Year 10	\$44.0							\$0.0	\$44.0	\$15.0	\$15.0			\$30.0	\$14.0
Year 11	\$44.0							\$0.0	\$44.0	\$15.0	\$15.0			\$30.0	\$14.0
Year 12	\$44.0							\$0.0	\$44.0	\$15.0	\$15.0			\$30.0	\$14.0
Year 13	\$44.0							\$0.0	\$44.0	\$15.0	\$15.0			\$30.0	\$14.0
Year 14	\$44.0							\$0.0	\$44.0	\$15.0	\$15.0			\$30.0	\$14.0
Grand Total	\$440.0	\$2.0	\$33.6	\$1.5	\$8.8	\$12.4	\$0.4	\$58.8	\$381.3	\$105.0	\$135.0	\$0.0	\$0.0	\$240.0	\$141.2
Notes: 1. Includes \$12.5m unspent proposition 50 money from prior years. 2. Includes striped bass stamp funding and future delta sport fishing enhancement stamp funding 3. CVP water users indicate that their contribution to the IEP may be greater than reported currently based on just CVPIA RF numbers. The CVP water users believe that some of the funding provided by 4. Bond funding includes Propositions 13 and 50 as well as a new proposed resources bond available in year 8. 5. The IEP funding is established by permit conditions adopted by the SWRCB for the State Water Project and Central Valley Project. For this reason, the IEP is substantially funded through user-related															

CBDA Science Percent Allocation Beginning Year 8	
State	Federal
50.0%	50.0%



## **Attachment CALFED Science Program Budget Summary and Justification**

This budget summary includes information on the CBDA science activities and the Interagency Ecological Program (IEP) activities.

### **CBDA Science Activities**

The CBDA Science activities have three broad goals:

- Identify important scientific issues that cross CALFED program boundaries.
- Invest in high-quality science to address critical information needs of the CALFED program
- Disseminate new scientific information to the broad CALFED community and educate the citizens of California in these issues.

The CBDA science program proposes approximately \$25.3 million to address critical scientific information needs of CALFED, and \$4.8 million to carry out independent reviews, support the Independent Science Board, develop and provide program guidance, and fully staff inter- program coordination, communication, and management functions of the Science Program. (See table)

#### **1. Identifying Important Scientific Issues (\$3.58 mill.)**

The goal of this aspect of the program is to identify issues that are and that will be of substantial concern regionally, over the long-term, and that affect CALFED's goals of water and ecosystem sustainability. We will have several mechanisms to do this:

- a. **Independent Science Board (\$1.5 mill)**—the ISB is one main player in this. They will identify problems, do some preliminary exploration on those problems, and bring them to the forefront by presenting them to the ISB, CBDA, and the broader community. The ISB will also directly advise CBDA on high priority technical issues, and serve as the peer review body for performance measures developed within CALFED.
- b. **Workshops (\$1.73 mill)**—workshops are excellent venues for identifying issues and getting a broad view of what the important questions are and how to go about solving those. Topics for workshops will be identified in three ways: by the ISB (covered in 1a above); by Science Program staff, and; by the broader scientific-stakeholder-agency community. A senior-level person (Ph.D. in science or closely related field) will manage the workshop program. This budget is designed to support 6 single-issue workshops and 2 major program reviews per year. Currently, several workshops related to SWRCB triennial review issues, water operations & biology, delta smelt, and salmonids are being planned.

- c. **Staff identification of issues (\$350,000)**—there is a role for rotating fulltime senior staff in the Science Program to identify problems and helping address CBDA questions/needs and building research agendas with other program elements. This will lead to review papers based on CALFED data and addressing important issues. This would involve bringing in co-authors from outside the program (from agencies, academia, stakeholders, etc.). This may follow a workshop, an ISB directive or be generated by staff in the Science Program or within other programs in CALFED. These positions will be directly assist the Lead Scientist but have broad authority to work with anyone to identify problems, obtain data, identify co-authors, and initiate and finalize writing and publication of reports/articles. Another aspect of this position will be to help the Lead Scientist incorporate the latest research questions into the Science Program science agenda and future requests for proposals.

## **2. Investing in Critical Unknowns (\$23.2 mill)**

The goal of this aspect of the program is to fund the best science possible and support new studies that address important CALFED cross-cutting issues through a competitive grants process. Some of those issues will be identified in #1 above and incorporated into requests for proposals, the science agenda and website documents. But, the scientific community will drive this as well through the proposals they submit to the Science Program, much in the way that the National Science Foundation, NASA and other federal granting agencies solicits and funds science. Internally we will develop programs and needs for research and then release a call for proposals to identify important problems within those areas. There are several aspects of the funding process that will require a dedicated staff:

- Developing and processing yearly requests for proposals;
- Establishing a continuous funding base to support innovative science;
- Developing a contracting procedure using national approaches, and;
- Maintaining transparency in process.

### **a. Grants Program (\$20 mill)**

The goals of the grants program are to identify priority issue areas where CALFED needs new information, communicate these management information needs to the research community, and to select high-quality studies in support of those needs through a transparent and competitive process. Staffing costs required to manage an annual grant making process and the awarded contracts would be \$1,975,000. Grants totaling \$18,455,000 to advance scientific understanding in the following priority topic areas would be awarded each year:

- Water operations and biology;
- Interactions between CALFED actions and natural processes in the Bay-Delta watershed;
- Performance assessment support through studies of natural processes throughout the watershed

- Improving the predictive capacity of models currently used in support of decision making
- Defining likely future scenarios and the relationship to CALFED actions, including land use, population, and climate changes

Example Projects. Because we want to emphasize high quality scientific activities and use a competitive process to select proposals, we cannot predict exactly what study topics will be funded in any given year. The following is a set of examples to serve as a discussion point for how much can be accomplished at what level of funding ( Delta Cross Channel Multidisciplinary studies \$4.8 million, 2.5 years; Selenium Fate and Transport Delta study (Franks Tract hydrodynamic results) \$2.6 million, 3 years; Delta smelt otolith analyses of samples from existing monitoring \$1 million/ year; Prepare 50,000 salmon scale samples for archiving and later analysis, \$450,000, 2 years; Delta smelt modeling, \$600,000, 2 years; Delta shallow water habitat use analyses, \$450,000, 2 years; Field reconnaissance study of indicators of contaminant exposure in juvenile salmon, \$160,000, 1 year; Pilot study designing performance assessment monitoring for tidal wetland restoration \$3.7 million)

**b. Post Doctoral Scholars and Graduate Fellowships Program (\$3.19 mill)**

The purposes of the specific program for postdoctoral researchers are to sustain investment in data analyses above pre-CALFED levels, introduce new graduates to CALFED management issues and information needs and thus develop a pool of highly qualified candidates for scientific positions within CALFED agencies, and support collaboration between agency scientists and research institutions. The program is currently being administered by UC San Diego/ Sea Grant for the Science Program.

**3. Disseminating Scientific Information and Communication of Issues (\$3.3 mill)**

Disseminating the up-to-date and high-quality information about important issues is crucial to everything CALFED does. We need to transfer a broad array of information to a vast array of people about what we do, why it is important and what we can expect in the future. Californians and California water supply systems, ecosystems and landscapes will undergo tremendous pressure and change in the future. Citizens of California need to understand the complexity of these problems and be part of the solution. A major obligation of the Science Program is to educate the community at several levels. Water users indicate that this is a priority funding area due to the disconnect communicating science activities to policy makers and the public.

- a. Science to the CALFED community (\$895,000)**— It is critical to get information into the agencies that need to use it, as well as the broader CALFED stakeholder community. The function of this program component is to clearly describe to members of the CALFED community the results of scientific investments and the potential ramifications of new information to resource management. Multiple tools for communicating and disseminating information will be used, including the “Science in Action” inserts, publications like the “Management Cues,” and ongoing posting of all Science Program products on the web. This is critical to our mission and will require a dedicated senior staff position.
- b. Science to Science Communication (\$848,000)**—the Science Conference is a great example of how to get information to the scientific community. Another in-house outlet is the online journal. The Science Program needs resources to continue and strengthen these outlets to foster understanding of what we are doing in CALFED and how it can be used to help solve problems. We will expand this effort to get broader recognition for CALFED work by additional efforts to publish papers in a wider array of peer-reviewed journals and review articles in national journals showing what CALFED does and why it is important to the broad water issues in California and other states.
- c. Program Coordination with CALFED Agencies (\$720,000)**—the science program will need to further develop its efforts within CBDA to respond to important information requests, develop program plans and coordinate agendas with other programs. Although much of this work will be done by the Deputy Director for Science in consultation with the Lead Scientist, the program needs additional resources and staff to better respond to this important need within CBDA. This will include guiding peer review and performance measures across CBDA programs, and developing programs for special workshops to research important “emergency” or “rapid-response” issues.
- d. Monitoring Design & Review Team (\$1.08 mill)**—The Science Program plays a central role in supporting existing and new science-based monitoring efforts across CALFED. This team will perform four functions: provide guidance and expert advice to agency staff involved in designing performance-based monitoring (both in-house expertise and science advisors in disciplines specific to monitoring needs); identify and capitalize on opportunities for leveraging support from non-CALFED sources, such as the NSF GLOBE program, to enhance citizen and other monitoring efforts; conduct internal assessments of large-scale monitoring efforts as to the effectiveness of these efforts in providing information to answer CALFED management questions; and coordinate with senior agency managers running monitoring efforts under CALFED and ensure that regular reviews of ongoing efforts are carried out.

## CBDA Science Program Budget For Finance Plan (\$ in millions)

Program Components	Proposed Annual Budget	Available Funding							
		Year 5	% of proposed	Year 6	% of proposed	Year 7	% of proposed	Years 8+	% of proposed
Identifying Important Scientific Issues	<b>\$3.58</b>	\$2.22	62%	2.22	62%	\$0.70	20%	\$0	0%
Independent Science Board	\$1.50	\$1.00	67%	1.00	67%	\$0.50	33%	\$0	0%
Workshops & Review	\$1.73	\$1.00	58%	1.00	58%	\$0.20	12%		0%
Staff Identification of Issues	\$0.35	\$0.22	63%	0.22	63%	\$0.00	0%	\$0	0%
Investing in Critical Unknowns	<b>\$23.18</b>	\$20.40	88%	2.92	13%	\$0.00	0%	\$0	0%
Grant Programs	\$19.99	\$18.00	90%	0.52	3%	\$0.00	0%	\$0	0%
Post Doc	\$3.19	\$2.40	75%	2.40	75%	\$0.00	0%	\$0	0%
Disseminating Scientific Information and Communication of Issues	<b>\$4.15</b>	\$1.66	40%	1.60	38%	\$0.95	23%	\$0	0%
Science to Science Managers Communications	\$0.90	\$0.55	61%	0.30	34%	\$0.30	34%	\$0	0%
Science to Science Communication	\$0.85	\$0.35	41%	0.60	70%	\$0.30	35%		
Program Coordination with CALFED Agencies	\$0.72	\$0.70	97%	0.70	97%	\$0.35	49%	\$0	0%
Monitoring Design & Evaluation Team	\$1.08	\$0.06	6%	0.00	0%	\$0.00	0%	\$0	0%
Consortia	\$0.61	\$0.35	NA	0.35	NA		NA	\$0	0%
<b>Total</b>	<b>\$30.91</b>	<b>\$24.28</b>	<b>79%</b>	<b>\$6.74</b>	<b>22%</b>	<b>\$1.65</b>	<b>5%</b>	<b>\$0</b>	<b>0%</b>

## **Interagency Ecological Program**

**1. Mandated monitoring (\$3.35 mill):** This component consists of the data collection aspects of the monitoring carried out as required by State Water Resource Control Board water permit (D-1641) and NOAA Fisheries and US Fish and Wildlife biological opinions for Central Valley Project and State Water Project operations. Data from these monitoring efforts comprise most of the long term datasets available for the estuary; the oldest dating back to 1959. This data has been used extensively by resource agencies and academia to study the San Francisco Estuary. These monitoring efforts provide data and information on status and trends of estuarine physical, chemical and biological properties, including abundance indices for listed fish species. These monitoring programs are instrumental in early detection of newly introduced species into the estuary and are used by the California Department of Fish and Game to evaluate proposed and existing regulation.

**2. Non-mandated monitoring (\$2.85 mill):** This component consists of the data collection activities associated with monitoring that is not mandated, but none the less important to define trends and supply data needed to understand estuarine mechanistic processes. Examples of this work include continuous tide and flow monitoring in the delta, adult sturgeon and striped bass population, and the delta shoreline fishes survey.

**3. Research/special study (\$1.27 mill):** The studies in this category are designed to provide mechanistic understanding of physical, chemical and ecological processes. These studies last from one to four years to address a specific question or hypothesis typically and are carried out by a combination of agency and academic researchers. As work is completed, new studies are implemented. This category includes some of the data collection work carried out by post-doctorate researchers. Specifically these studies are used to develop and evaluate new methods and technologies, develop and apply hydrodynamic and biological models, and where possible support work that complements grants and research funded by other sources.

**4. Program review (\$220,000):** This category comprises the time staff spends reviewing the study elements for scientific soundness, effectiveness, usefulness, and potential areas of improvement. These programmatic and management reviews are done periodically among the monitoring studies to ensure the data and information gathered is appropriate and relevant to present needs.

**5. Analysis/reporting (\$1.87 mill):** This category contains the time spent compiling and analyzing the monitoring and special studies data into meaningful information and preparing reports or otherwise making the information available through peer-reviewed articles, technical reports, internet web pages and newsletter articles. These analyses and publications serve to disseminate the information to scientific community and to present it to management and policy makers in a concise manner. The work done by post-doctoral researchers falls mostly into this category.

**6. Staff expertise (\$350,000):** This category accounts staff time spent participating, presenting and testifying at workshops, conferences, OCAP and EWA meetings, project work teams and water rights hearings. Active participation in these forums is not only required by agency responsibilities in some cases, but also ensures information is disseminated accurately and widely.

**7. Other reviews (\$600,000):** This category is the time spent on reviewing and commenting on study proposals, newsletter articles, technical reports and chapters, journal submittals and written materials. These reviews give assurance that data is analyzed correctly and information is accurately reported. Reviews of study proposals are necessary to ensure funding and resources are given to studies that will likely provide needed information and leads to meeting the IEP's goals and objectives.

**8. Data management (\$1.84 mill):** This category accounts for all aspects of data management and the computer infrastructure needed to support it. All data entry, QA/QC, programming, internet web page development and support, system development and maintenance and general computer support is captured in this category.

**9. Other administrative and management costs (\$1.28 mill):** This category includes program support staff for developing budgets, preparing contracts and other management time not accounted for in existing categories.

**10. Equipment (\$390,000):** This item estimates the costs to replace equipment valued over \$20,000. The majority of these costs are research vessels, but included are vehicles and major pieces of hydrodynamic monitoring equipment. The cost have been totaled for 10 years and divided evenly across the years although actual timing of the expenditures will vary.

**11. IEP "Plus" – Performance Evaluation and Monitoring Program (\$5-10 mill):** The Multi-Species Conservation Strategy (provides NCCP Coverage for CALFED program actions), The Record of Decision, the draft Memorandum of Understanding regarding the CALFED Bay Delta Program Activities in the Delta, the Ecosystem Restoration Program, and other CALFED program elements all require information derived from a Comprehensive Long Term Monitoring Program. The IEP is proposing to facilitate development of a detailed long-term comprehensive ecological (including water quality) monitoring program built upon past work and existing foundational monitoring programs to fulfill monitoring and assessment mandates for CALFED's Water Quality, Ecosystem Restoration and Watershed Management Coordination programs. The Delta Improvements Package Implementation Plan (page 8-9) directed IEP to work with other agencies to design and implement a Performance Evaluation and Monitoring Program. This program will evaluate the water quality and biological resource effects of the SWP, CVP, and the Delta activities described in this MOU. This program will include, at a minimum, performance measures, conceptual models, adaptive management strategies, data handling and storage protocols, expected products and outcomes, regular reporting, and an independent review of existing monitoring programs.

## Interagency Ecological Program Funding Targets (\$ in millions)

Program Components	Average Annual Target	Year 5 <sup>a</sup>	Year 6	Year 7 <sup>b</sup>	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	10 Year Total
Mandated monitoring	\$3.35	\$3.35	\$3.52	\$3.69	\$3.88	\$4.07	\$4.28	\$4.49	\$4.72	\$4.95	\$5.20	\$42.15
Non-mandated monitoring <sup>1</sup>	\$2.85	\$2.85	\$2.99	\$3.14	\$3.30	\$3.46	\$3.63	\$3.82	\$4.01	\$4.21	\$4.42	\$35.82
Research/special studies <sup>2</sup>	\$1.27	\$1.27	\$1.33	\$1.39	\$1.46	\$1.54	\$1.61	\$1.70	\$1.78	\$1.87	\$1.96	\$15.91
Program review	\$0.22	\$0.22	\$0.23	\$0.24	\$0.25	\$0.26	\$0.28	\$0.29	\$0.30	\$0.32	\$0.34	\$2.72
Analysis/reporting	\$1.87	\$1.87	\$1.96	\$2.06	\$2.16	\$2.27	\$2.39	\$2.51	\$2.63	\$2.76	\$2.90	\$23.52
Staff expertise	\$0.35	\$0.35	\$0.37	\$0.39	\$0.41	\$0.43	\$0.45	\$0.47	\$0.50	\$0.52	\$0.55	\$4.43
Other review	\$0.60	\$0.60	\$0.63	\$0.67	\$0.70	\$0.73	\$0.77	\$0.81	\$0.85	\$0.89	\$0.94	\$7.60
Data management	\$1.84	\$1.84	\$1.93	\$2.03	\$2.13	\$2.24	\$2.35	\$2.46	\$2.59	\$2.72	\$2.85	\$23.13
Other administrative and management cost	\$1.28	\$1.28	\$1.35	\$1.41	\$1.48	\$1.56	\$1.64	\$1.72	\$1.80	\$1.89	\$1.99	\$16.12
Equipment replacement	\$0.39	\$0.39	\$0.41	\$0.43	\$0.45	\$0.47	\$0.50	\$0.52	\$0.55	\$0.58	\$0.61	\$4.91
<b>Total</b>	<b>\$14.02</b>	<b>\$14.02</b>	<b>\$14.72</b>	<b>\$15.45</b>	<b>\$16.23</b>	<b>\$17.04</b>	<b>\$17.89</b>	<b>\$18.78</b>	<b>\$19.72</b>	<b>\$20.71</b>	<b>\$21.74</b>	<b>\$176.30</b>
IEP Plus (Performance Evaluation and Monitoring Program) <sup>3</sup>		\$0		\$5-10	\$5-10	\$5-10	\$5-10	\$5-10	\$5-10	\$5-10	\$5-10	\$45-90
<p>Notes:</p> <p>A five percent inflation factor has been included for outgoing years to account for cost of living increases.</p> <p><sup>a</sup> This budget is based on the 2004 program with updated program costs.</p> <p><sup>b</sup> If the pilot work on larval delta smelt is successful and the delta smelt working group decides to implement a full larval fish monitoring program, then the annual costs for mandated monitoring will increase by \$236,000.</p> <p><sup>1</sup> One study requests an additional \$145,000 to fund a database manager. It has not been included in the proposed 2005 budget.</p> <p><sup>2</sup> Special studies have 1-4 year duration. The amount presented for 2005 is the average annual cost for current special studies.</p> <p><sup>3</sup> IEP Plus needs have not been increased to account for cost of living increases.</p>												



# Oversight and Coordination

## **Background and Funding History**

The California Bay-Delta Authority's (CBDA) Oversight and Coordination (OC) program element includes both those functions necessary for the operation of any large organization such as executive and staff management, legal support and financial analysis, and those that are unique to the Bay-Delta Program but cut across the other programs under the CBDA's management, such as regional coordination, environmental justice (EJ), public involvement and water management strategies.

The CBDA oversees and helps coordinate the activities of the 24 state and federal agencies working cooperatively through the CALFED Program to improve the quality and reliability of California's water supplies while restoring the Bay-Delta ecosystem. The California Bay-Delta Authority Act of 2003 established the Authority as the new governance structure for CALFED and charged it with providing accountability, ensuring balanced implementation, tracking and assessing Program progress, using sound science, assuring public involvement and outreach, and coordinating and integrating related government programs. The staff is guided by the Authority and helps provide direction to implementing agencies. As an essential part of implementation, oversight and coordination is a vital component of the CALFED process, providing a forum for discussion, public accountability, and assisting in Program integration. The coordination between the state and federal agencies is necessary to achieve balanced implementation of the 11 program elements and is made easier by the oversight provided by the staff at the Authority.

O&C expenditures have averaged about \$10.6 million annually over the first four years of the Bay-Delta Program (ranging from a high of \$11 million and a low of \$9 million). To date, the program has been funded largely through public funds. The State has funded almost 89% of O&C costs, while the federal government has funded the rest at 11%.

## **Proposed 10-Year Finance Plan**

### ***Funding targets***

The proposed funding target for OC is \$120 million over 10 years, based on a target of \$12 million per year. The \$12 million/year is for the following program functions (See attached budget description for further detail):

Executive/Legal/Contracts/Fiscal/HR/IT	\$6.7
Public Affairs	\$0.8
Environmental Justice	\$0.3
Support for BDPAC	\$0.2
Program tracking	\$1.1
Regional coordination	\$1.0
Finance planning	\$0.6
Permit coordination	\$0.9
Tribal Relations	<u>\$0.3</u>
<b>Total</b>	<b>\$11.9</b>

### ***Proposed Funding Allocations***

O&C functions are proposed to be funded with public (state and federal) funds. The functions of the OC element are fundamental to the operation and success of the CALFED program. While apportioning the cost of the OC element among all the total CALFED expenditures/funding sources is an option; it is not proposed because the link between the benefits of the OC element and the nonpublic beneficiaries (i.e. water users) is difficult to identify and describe. In addition, it was a higher priority at this time to identify benefits and allocate costs to the water users in other program elements such as the ERP, EWA, and Levees programs.

The Distribution of costs between the state and federal governments is based on the limitations currently set in the proposed Federal CALFED authorization bill (S 1097). The proposed bill provides authorizes \$25 million over 5 years (beginning in Year 5) for the federal share of Program oversight. In addition, Reclamation has indicated that only 50% of funding from the authorization legislation of \$25 million will become available to meet the \$12 million funding target – the other 50% will be appropriated to Reclamation for their CALFED oversight and management activities. Therefore, the federal share of \$12.5 million is shown in the following table to be allocated in years 6-8 to fill the funding gap; and in Year 8 additional State funding is needed to meet the program funding target. After this federal authorization expires, in Year 10; it is expected that continuing federal authorization will be sought.

### **Periodic Review**

The O&C budget is reviewed annually through the program plan process. As a process becomes more established for some tasks such as the finance plan, costs may decrease and funds may be shifted to processes that are increasing outreach and coordination such as the formulation of the regional profiles.

## Oversight and Coordination Straw Proposal - Funding Allocation

(\$ in millions)  
October 5, 2004

Program Year	Funding Targets	Available Funding		Total Available	Unmet Needs	Proposed Funding for Unmet Needs		Total Funding Proposed	Remaining Gap
		State	Federal			State	Federal <sup>1</sup>		
		GF	Approps.						
Years 5-9	\$60.0	\$36.0	\$1.5	\$37.5	\$22.5	\$6.7	\$12.5	\$19.2	\$3.3
Year 5	\$12.0	\$7.2	\$1.5	\$8.7	\$3.3			\$0.0	\$3.3
Year 6	\$12.0	\$7.2		\$7.2	\$4.8		\$4.8	\$4.8	\$0.0
Year 7	\$12.0	\$7.2		\$7.2	\$4.8		\$4.8	\$4.8	\$0.0
Year 8	\$12.0	\$7.2		\$7.2	\$4.8	\$1.9	\$2.9	\$4.8	\$0.0
Year 9	\$12.0	\$7.2		\$7.2	\$4.8	\$4.8		\$4.8	\$0.0
Years 10-14	\$60.0	\$36.0		\$36.0	\$24.0	\$14.0	\$10.0	\$24.0	\$0.0
Year 10	\$12.0	\$7.2		\$7.2	\$4.8	\$4.8		\$4.8	\$0.0
Year 11	\$12.0	\$7.2		\$7.2	\$4.8	\$2.3	\$2.5	\$4.8	\$0.0
Year 12	\$12.0	\$7.2		\$7.2	\$4.8	\$2.3	\$2.5	\$4.8	\$0.0
Year 13	\$12.0	\$7.2		\$7.2	\$4.8	\$2.3	\$2.5	\$4.8	\$0.0
Year 14	\$12.0	\$7.2		\$7.2	\$4.8	\$2.3	\$2.5	\$4.8	\$0.0
Total, Years 5-14	\$120.0	\$72.0	\$1.5	\$73.5	\$46.5	\$20.7	\$22.5	\$43.2	\$3.3

Notes:

1. Assumes 50% funding for authorizing legislation of \$25m until 2010. Also assumes reauthorization for same level of funding.

### Oversight and Coordination Program Average 10 Year Percent Allocation

State	Federal
80%	20%

## **Attachment Oversight and Coordination Budget Summary and Justification**

### **Executive, Legal, Contracts/Fiscal, IT/Human Resources (\$6.7 million)**

The ROD and the California Bay-Delta Authority Act of 2003 require implementation of a balanced program. Finance planning, regional profiles, annual report, and the program plans all provide information helpful to assessing the status of the Program, transparency of the CALFED process, and assist in the discussion of balance and integration. The Executive section of CALFED oversees the entire department and provides direction at the behest of the Authority on how the Program proceeds, while legal provides advice to CALFED. Contracts/Fiscal helps oversee CALFED's budget and expenses. Human Resources and Information Technology staff are needed to provide the background and support to keep the organization running smoothly.

### **Public Affairs/Public Involvement (\$800,000)**

The CALFED Program is founded on the principle of bringing greater transparency, public involvement, and accountability to Program implementation and to the decision-making process. Strong two-way communication and public information bring this principle to life.

### **Environmental Justice (\$335,000)**

A commitment to address Environmental Justice (EJ) communities and populations at both the Programmatic and project levels is included in both the Record of Decision and the California Bay-Delta Authority Act. Part of the oversight and coordination function of the Authority is to help implementing agencies incorporate environmental justice into their program implementation and provide a forum for concerns to be discussed. The ROD calls for the integration of EJ across all program elements. In order to meet this requirement close collaboration is required among all program elements to consider EJ concerns when raised, and to incorporate EJ concepts and principles when appropriate.

### **Support for the Bay-Delta Authority and Public Advisory Committee (\$200,000)**

The Authority, composed of public members, representatives of state and federal agencies, and members of the legislature, is responsible for overseeing the implementation of the CALFED Program. The Bay-Delta Public Advisory Committee (BDPAC) is composed of public members representing various areas of expertise and stakeholder groups. It is a federally-chartered committee and was established as a state advisory committee in the California Bay-Delta Act of 2003. BDPAC provides recommendations to the Secretary of the Interior, other participating federal agencies, the Governor of California, and the Authority on implementation of the CALFED Program. There are nine subcommittees established by BDPAC, in consultation with the Authority, to recommend courses of action on topics deemed critical by BDPAC. Each subcommittee has broad public membership and is expected to address stakeholder and agency concerns and report its findings and recommendations to BDPAC. Considerable staff time is taken to prepare for a public meeting each month and several monthly subcommittee meetings.

10/7/2004

**Program Tracking (\$1.1 million)**

A critical component of the CALFED Program is program-wide tracking of funding, schedules and performance. The goal is to provide a program-wide summary of progress for the Authority, BDPAC, and the public. The information collected through program tracking assists in maintaining program-wide balance and integration and is used both in the multi-year program plans and in the annual report.

**Regional Coordination (\$1 million)**

The CALFED Program is committed to the concept of local partnerships and regionally based implementation. Regional Coordinators, selected from within the region itself, help to enhance two way communications between the region and various elements of the Program.

**Finance Plan (\$600,000)**

The Authority is preparing a 10-year Finance Plan for all aspects of the CALFED Program. A fundamental priority of the CALFED Program is to maintain a balanced and integrated Program. It is important to develop a Finance Plan that enables the Program to continue implementation in a balanced manner.

**Tribal Relations (\$300,000)**

The Record of Decision and the Authority's implementing statute both include a commitment to coordinate with tribal governments as part of Program implementation. Part of the oversight and coordination function of the Authority is to help implementing agencies avoid and address tribal concerns associated with their implementation activities. The oversight and coordination aspect of CALFED provides opportunities for cooperation and coordination to occur.